PROGRAM OF STUDIES FOR JUNIOR HIGH SCHOOLS

1978

Alberta EDUCATION

PROGRAM OF STUDIES

FOR

JUNIOR HIGH SCHOOLS

This Program of Studies is issued under the authority of the Minister of Education pursuant to Section 12 of The School Act.

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INTRODUCTION

This Program of Studies contains an outline of the content of each course in the Junior High School together with a list of the recommended texts and approved secondary references. Regulations with respect to the credit value of courses, examinations and other matters relating to the operation of the high school appear in the current issue of the *Junior-Senior High School Handbook*.

Teachers who want suggestions concerning methods of handling a given course will find them in the related curriculum guide which may be obtained through the office of their superintendent, or purchased from the Printing and Stationery Branch, Alberta Education.

The assistance of committees in preparing the outlines in the various subjects is gratefully acknowledged.

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GROUP A OPTIONS
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THE GOALS OF BASIC EDUCATION FOR ALBERTA

Introduction

Goals are statements which indicate what is to be achieved or worked toward. In relation to basic education, goals serve several functions:

(1) They identify the distinctive role of the school and its contribution to the total education of youth;

(2) They provide purpose and direction to curriculum planning, implementation and evaluation;

(3) They enable parents, teachers and the community at large to develop a common understanding of what the schools are trying to achieve.

Society must periodically re-examine the goals of its schools. Changes in emphasis and minor adjustment of the basic goals may be required from time to time to keep pace with social change.

This statement of goals is to direct education for grades 1 through 12 in Alberta schools. It is the basis from which specific objectives for various subjects and grades shall be developed.

While the school makes a very important contribution to education, it is only one of the agencies involved in the education of youth. The home, the church, the media and community organizations are very significant influences on children. It is useful, therefore, to delimit the role of schooling in education. Education refers to all the learning experiences the individual has in interacting with the physical and social environment; it is a continuing and lifelong process. Schooling, which has a more limited purpose, refers to the learning activities planned and conducted by a formally structured agency which influences individuals during a specified period. There is, of course, a very close relationship between schooling and education — the learning which occurs in school influences and is influenced by what is learned outside the school.

Goals of Schooling

Schooling, as part of education, accepts primary and distinctive responsibility for specific goals basic to the broader goals of education. Programs and activities shall be planned, taught, and evaluated on the basis of these specific goals in order that students:

— Develop competencies in reading, writing, speaking, listening and viewing.

— Acquire basic knowledge and develop skills and attitudes in mathematics, the practical and fine arts, the sciences, and the social studies (including history and geography), with appropriate local, national, and international emphases in each.

— Develop the learning skills of finding, organizing, analyzing, and applying information in a constructive and objective manner.

— Acquire knowledge and develop skills, attitudes and habits which contribute to physical, mental and social well-being.

— Develop an understanding of the meaning, responsibilities, and benefits of active citizenship at the local, national and international levels.

— Acquire knowledge and develop skills, attitudes, and habits required to respond to the opportunities and expectations of the world of work.

Because the above goals are highly interrelated, each complementing and reinforcing the others, priority ranking among them is not suggested. It is recognized that in sequencing learning activities for students some goals are emphasized earlier than others; however, in relation to the total years of schooling, they are of equal importance.

In working toward the attainment of its goals, the school will strive for excellence. However, the degree of individual achievement also depends on student ability and motivation as well as support from the home. Completion of diploma requirements is expected to provide the graduate with basic preparation for lifelong learning. Dependent on program choices, the diploma also enables job entry or further formal study.

Goals of Education

Achievement of the broader goals of education must be viewed as a shared responsibility of the community. Maximum learning occurs when the efforts and expectations of various agencies affecting children complement each other. Recognizing the learning that has or has not occurred through various community influences, among which the home is most important, the school will strive to:

— Develop intellectual curiosity and desire for lifelong learning.
— Develop the ability to get along with people of varying backgrounds, beliefs and lifestyles.
— Develop a sense of community responsibility which embraces respect for law and authority, public and private property, and the rights of others.
— Develop self-discipline, self-understanding, and a positive self-concept through realistic appraisal of one's capabilities and limitations.
— Develop an appreciation for tradition and the ability to understand and respond to change as it occurs in personal life and in society.
— Develop skills for effective utilization of financial resources and leisure time and for constructive involvement in community endeavors.
— Develop an appreciation for the role of the family in society.
— Develop an interest in cultural and recreational pursuits.
— Develop a commitment to the careful use of natural resources and to the preservation and improvement of the physical environment.
— Develop a sense of purpose in life and ethical or spiritual values which respect the worth of the individual, justice, fair play, and fundamental rights, responsibilities and freedoms.

The ultimate aim of education is to develop the abilities of the individual in order to fulfill personal aspirations while making a positive contribution to society.

LANGUAGE ARTS

The Philosophy of the Language Arts Program

Certain fundamental principles relating to the nature of language, to children's development and to language learning have provided the theoretical framework for the development of the language arts program. Commitment to the program by teachers must be based on knowledge of what those principles are and an understanding of what they mean in guiding the language process in school. The following, then, are the principles and resulting implications which provide the major thrusts for the language arts program.

1. In the early years, the child's thinking and language ability develop in his own dialect.
    a. Initial learning experiences fostered by the school must be based on the acceptance and use of the oral language that young children bring to school.
    b. The acquisition of receptive and productive control of school language (standard English) is preceded by the goal of facilitating initial learning in children's own dialects.

2. Language variation is an integral part of language use.
    a. Teachers must accept and respect the unique language of each student and provide for language growth in a classroom environment characterized by mutual respect, acceptance and trust.
    b. The role of the school includes helping students to recognize, appreciate and respect language differences and encouraging them to value each other's language.
    c. The acquisition of standard dialect should occur within a framework which provides opportunities for students to hear and practise appropriate language forms in a variety of language situations.

3. Experience and language are closely interwoven in all learning situations. On the one hand, experiences expand students' language by providing them with new meanings and by modifying and enlarging previously acquired ones. On the other hand, as students gain in their ability to understand and use language, they can enter into, comprehend and react to a variety of experiences.
    a. Students must be given opportunities to enlarge their experiences, including direct experiences and those obtained vicariously through listening, reading and viewing.
    b. Students must be given help in finding and using language to clarify and organize their thinking and feeling about their experiences.
    c. As students develop concepts and understandings there should be a continuous building from concrete experiences and discovery towards more abstract study and learning.

4. Language expansion occurs primarily through active involvement in language situations.
    a. School experiences must maintain the link between the learner and what is to be learned through activities which encourage student participation.
    b. Students should be given opportunities to participate in experiences which require use of language in increasingly differentiated contexts.

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5. Through talk the students learn to organize their environment, interpret their experiences and communicate with others. As they mature they continue to use talk for these purposes as well as to check their understandings against those of others and to build up an objective view of reality.

    and discussion.

  b. At all levels of schooling classes should be organized so that there are opportunities for teachers and students to interact through the medium of talk.

  c. The recognition of talk as a significant vehicle for learning must consider the processes involved in understanding meaning conveyed by others as well as the student's own expression of meaning.

6. Language is used to communicate understandings, ideas and feelings, to assist social and personal development and to mediate thought processes.

  a. Language learning activities provided in the classroom should be organized for a balance which reflects the actual use of language in the real world.

  b. Students need opportunities to gain competence in using language in a range of functions and in a variety of contexts.

  c. Students should use language to explore their own feelings and their relations with others.

  d. The school should help students extend their thinking skills and add meaning to their experiences.

7. Various mass media have their own characteristic ways of presenting ideas.

  a. To discern the nature and value of ideas presented through mass media requires a knowledge of the language proper to a particular medium.

  b. The school must help students develop a mass media literacy through an intelligent exploration of how ideas are conveyed and through discriminative reaction and personal use of media.

8. Literature is an integral part of language learning.

  a. Students should have many opportunities to experience and respond to literature at all stages of their development.

  b. Access to a wide variety of literary material is essential to a balanced, comprehensive literature program.

  c. Literature experiences must include students' creative expression.

9. Language use reflects the inter-relatedness of the processes of listening, speaking, reading, writing and viewing.

  a. A language arts program which provides for a balanced approach must be based on the integrative nature of all aspects of receptive and expressive language skills.

  b. Language instruction should involve students in activities which focus on the unique contribution of the language skills when used separately and together.

  c. Classroom activities should incorporate experiences which reflect meaningful uses of language and provide for relating skills and content.

  d. A balanced program promotes the affective and psychomotor development of students as well as the cognitive dimensions of growth.

10. Language functions throughout the entire curriculum.
    a. The application of language skills is necessary for successful achievement in all subject areas.
    b. Teachers in all subjects must assume responsibility for appropriate application of communication skills as they relate to their particular areas.

General Language Arts Objectives for Grades 1 - 12

Language is a social behavior. Therefore, the language arts program should provide opportunities for students to experience language in functional, artistic and pleasureful situations with the aims:

1. To develop an awareness of and interest in how language works;
2. To develop an understanding and appreciation of a wide range of language use;
3. To develop flexibility in using language for a variety of purposes.

Specific Language Arts Objectives for Grades 1 - 12

The specific objectives of the language arts for grades 1 - 12 arise out of the *Goals of Basic Education* and the general objectives for language arts. Although the objectives are applicable at all levels, the emphases may vary from level to level or from grade to grade. Through developing skills in listening, speaking, reading, writing, viewing and other related language abilities, the program should assist students to grow in their knowledge of language, to appreciate its value in their lives and to use it well. Accordingly, the program should provide opportunities for students to develop their understanding and apply their knowledge in the following dimensions of language:

1. Production and reception of sounds and printed words;
2. Relationships between the flow of words in speech and the arrangement of words on the printed page;
3. Use of language to talk about language;
4. Order and form of words as signals of meaning;
5. Relationship between diversity and subtlety of word meanings and the total meaning of a communication;
6. Relationships between the manner in which ideas are organized and presented and the total meaning of a communication;
7. Extension and enrichment of meaning through non-verbal communication;
8. Language variation according to audience, purpose, situation, culture and society;
9. Immediate language variation in sensitive response to audience reaction;
10. Language as a dynamic system which records, reflects and affects cultures;
11. Use of language to explore the environment and ideas of others, to develop new concepts and to evaluate what is discovered;
12. Role of language in increasing understanding of self and others;
13. Use of language to stir imagination, deepen understanding, arouse emotion and give pleasure;
14. Relationship of language to other forms of artistic expression.

Introduction: Statement of Content

The proposed content for the junior high language arts program is stated on the following pages. It is intended that these statements provide clear guidelines for teachers who will *adjust them according to the needs of students.*

Each page is arranged as follows:

1	2	3	4
Concepts for junior high	Grade 7 skills	Grade 8 skills	Grade 9 skills
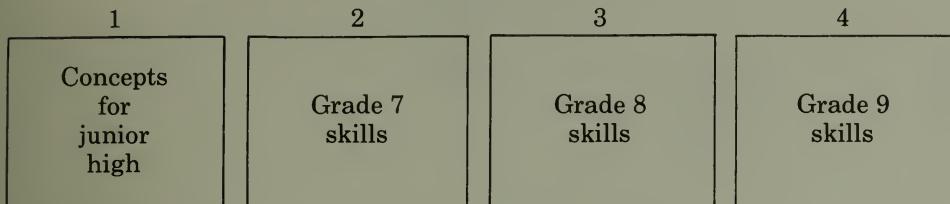
Block 1: Contains concepts for the whole junior high program. Teachers should work towards the understanding of these concepts throughout the whole junior high experience.

Block 2: Includes skills to be developed in Grade 7. These skills are related to the concept immediately to the left in Block 1. Both concept and skill(s) should be developed together.

Block 3: Includes skills to be developed in Grade 8. These skills are also related to the concepts to the left in the same row. It is expected that the level of understanding of the concepts and the level of skill development will expand or extend ability that has been developed in the previous grade(s).

Block 4: Includes skills to be developed in Grade 9. Similar relationships and expectations exist here as in Grade 8.

Integration — In identifying content for junior high language arts, the attempt has been made to make statements that are appropriate to many ways of receiving (reading, listening, viewing) and to various ways of expressing (speaking, writing, gesturing, acting). Although each of these aspects of communication is not always stated explicitly because of the resulting repetition, the expectation is that wherever possible these aspects be understood.

*Because the ability and background of students vary, certain aspects of the program are identified as *optional.* These parts are marked with an asterisk. Where appropriate, all parts of the program should be taught.

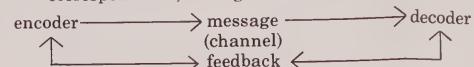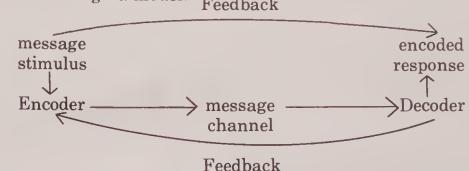| CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)

Part 1 — The Communication Process
1. Communication, the process of sharing ideas, thoughts, and feelings, involves the exchange of information by means of a code which both the sender and receiver understand.
	1. Describing and analyzing casual communication situations (e.g. chats, discussions with peers, friendly letters, expressive paragraphs) through a simplified model:
	
	sender ⟶ message ⟶ receiver
	(encoder) (decoder)
		1. Describing and analyzing informal communication situations (e.g. talks, classroom discussions, social correspondence) through a model:
		
		encoder ⟶ message ⟶ decoder
		               (channel)
		               feedback
			1. Describing and analyzing formal communication situations (e.g. speeches, meetings, debates) through a model: Feedback
			
			message encoded
			stimulus response
			
			Encoder ⟶ message ⟶ Decoder
			            channel
			
			Feedback

2. Effective communication requires attention to all elements of a communication, and to the inter-relationships among these elements: a. stimulus b. communicator c. audience d. message e. situation (context) f. medium g. purpose h. code (with the use of several modes)	2. a. Recognizing and understanding the elements of communication. b. Analyzing communication situations to select examples of the elements of communication. c. Setting up communication situations utilizing the elements of communication.	2. a. Analyzing communication situations to identify and describe the inter-relationships among the elements of communication. b. Combining the elements of communication to create well-integrated communication situations.	2. a. Analyzing communication situations to discover ways in which the elements of communication can be manipulated to achieve various purposes, to appeal to various audiences and to create certain impressions. b. Manipulating the elements of communication to achieve effective communication.
3. There are many kinds of communication: a. animal b. human, both verbal and non-verbal (signs and symbols, simple kinesics)	3. Identifying and describing different kinds of communication: a. animal b. human, verbal and non-verbal (kinesics, facial expressions)	3. Identifying and describing different kinds of communication: a. verbal communication b. non-verbal communication, including kinesics, signs and symbols, and *the language of the deaf and other non-verbal languages	3. Identifying and describing different kinds of verbal and non-verbal communication: a. background of experience b. cultural differences *c. use of space in communication situations (proxemics) *d. use of mechanical (electronic) devices
4. There are different levels of oral and written communication, based on the relationship between a communicator and his audience: a. casual b. informal c. formal	4. Developing increasing proficiency in dealing with many levels of oral and written language: a. discussion b. conversation c. friendly letters	4. Developing increasing proficiency in dealing with many levels of oral and written language: a. informal talks b. written reports c. social correspondence (thank you letters, invitations)	4. Developing increasing proficiency in dealing with many levels of oral and written language: a. debates b. essays c. business letters

*indicates optional content

CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)

5. There are factors which influence the effectiveness of communication:
  a. *Facilitators,* including common knowledge and experience, rapport and empathy, clarity of expression, precision of vocabulary, effective sentence structure, legibility
  b. *Barriers,* including lack of empathy or background experience, ambiguity, lack of clarity, illegibility, emotional distraction
	5. Dealing effectively with facilitators and barriers to communication:
	  a. Becoming aware of an appropriate communication environment (rapport, empathy, physical surroundings, simple and direct expression through precise vocabulary and simple structure)
	  b. Eliminating obvious barriers to communication including:
	    — misspellings/mispronunciations
	    — illegible writing/inaudible speech
	    — sentence errors
	    — overworked words/inaccurate word choice
		5. Dealing effectively with facilitators and barriers to communication:
		  a. Taking increasing advantage of appropriate communication environment, manipulating modes of expression, and increasing awareness of effects produced through words and structure
		  b. Eliminating more complex barriers to effective communication including:
		    — sentence errors
		    — inappropriate diction
		    — vulgarisms
			5. Dealing effectively with facilitators and barriers to communication:
			  a. Controlling appropriate communication environments, increasing the sophistication of expression in vocabulary and structure
			  b. Eliminating further subtle barriers to communication including:
			    — clichés
			    — sentence errors
			    — inexact diction
			    — inappropriate usage

6. Language arts instruction attempts to produce conscious communicators by expanding facilitators and eliminating barriers to effective communication.	6. Applying language arts skills (L S R W V) with increasing proficiency to learning situations in all subject areas and to social situations.	6. Applying language arts skills (L S R W V) with increasing proficiency to learning situations in all subject areas and to social situations.	6. Applying language art skills (L S R W V) with increasing proficiency to learning situations in all subject areas and to social situations.

Part 2 — The System of Language

CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)

1. Meaning is transmitted through a sound system (speech) and a symbol system (graphic).	1. Recognizing relationships between oral and written language conventions:
	  a. representing speech sounds as written symbols
	  b. identifying similarities and differences between spoken and written language.
		1. Expanding knowledge of the relationship between oral and written language conventions:
		  a. recognizing the distinct functions of spoken and written language
		  b. representing spoken language as non-print forms of communication (e.g. pictures, gestures)
			1. Applying knowledge of the relationship between oral and written language conventions (e.g. implying and inferring emotions and attitudes):
			  a. through sound and intonation
			  b. through punctuation and form

2. Words have both meaning and function:
  a. form class and function words, i.e. parts of speech
  b. morphemes (roots or stems, inflections, derivatives, compounds)
	2. Understanding the English language system:
	  a. identifying and classifying form class and function words
	  b. recognizing and understanding compounds
	  c. forming compounds
	  d. recognizing derivations, deriving new words
	  e. understanding and utilizing inflections
	  f. identifying principles governing appropriate spelling
	  g. recognizing common roots, stems and affixes
		2. Making effective use of the language system:
		  a. applying spelling rules
		  b. recognizing homophones or homographs
		  c. deriving meanings of unfamiliar words
		  d. understanding the meaning and evolution of current compounds
			2. Manipulating words and word meaning:
			  a. deriving the meaning of borrowed words
			  b. expanding vocabulary using roots, stems, and affixes
			  c. recognizing and utilizing alternative or changed spelling of words.
			  d. creating new compounds

3. The meanings of words can change, and are dependent upon the context of their use.	3. Recognizing and identifying differing meanings of words in oral and written language:
	  a. connotative and denotative words
	  b. general and specific words
		3. Manipulating differing meanings of words in oral and written language:
		  a. words with multiple meanings
		  b. general and specific words
		  c. synonymous words and expressions
			3. Interpreting differing meanings of words in oral and written language:
			  a. ambiguous or vague words
			  b. word nuances

*indicates optional content

CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)
*4. The changing needs and values of society have resulted in the forming and borrowing of words, in changed meanings of words, and in changing patterns of usage: a. the influence of historical events upon language b. the influence of media, technology, and industry upon language c. changing values and lifestyles of language users	*4. Recognizing the appropriate use of the language of the subcultures: a. slang and colloquial usage b. the jargon of teenagers	*4. Recognizing and developing sensitivity to stylistic language use: a. advertisements, announcements, headlines, propaganda b. specialized vocabularies in professions, trades and business	*4. Understanding and manipulating old and new language: a. obsolete or archaic forms and expressions b. the jargon of the times

5. Words are arranged in groups and in sentences according to syntactic patterns:
 	
a. common word groups
b. function, ordering, and movement of word groups
c. inter-relationships between word groups
d. sentence patterns
	5. Recognizing, understanding and utilizing syntactic groups in oral and written language:
	
	a. word groups
	  — prepositional phrases
	  — noun phrases
	  — verb phrases
	  — coordinating and correlative conjunctions
	  — compounds (verb, subject, direct object, indirect object, prepositional phrases)
	b. sentence patterns
	  — to express one main idea
	  — to express more complex ideas
		5. Recognizing, understanding and utilizing with increasing proficiency syntactic groups in oral and written language:
		
		a. word groups
		  — prepositional phrases
		  — noun phrases
		  — verb phrases
		  — coordinating and correlative conjunctions
		  — compounds (verb, subject, direct object, indirect object, prepositional phrases)
		b. sentence patterns
		  — to combine ideas
		  — to show relationships between ideas
			5. Recognizing, understanding and utilizing with increasing proficiency syntactic groups in oral and written language:
			
			a. word groups
			  — prepositional phrases
			  — noun phrases
			  — verb phrases
			  — coordinating and correlative conjunctions
			  — compounds (verb, subject, direct object)
			  — as clauses (adjectival, adverbial, noun)
			  — as reduced clauses (appositives, prepositional phrases, participial phrases)
			b. sentence patterns
			  — to show cause and effect, temporal or other logical relationships
			  — to emphasize ideas
			  — to show variety effect transitions
			  — to effect transitions

6. The use of a language is governed by conventions:
 	
a. structural patterns
b. patterns of usage
	6. Recognizing conventional usage and demonstrating knowledge of and ability to follow conventions in speaking and writing:
	
	*a. choice of passive or active voice in special situations such as reporting of scientific experiments, minutes of business meetings, news, court proceedings (recognition only).
	b. verb tenses
	  — simple past, present, and future
	  — present progressive
	  — maintaining verb tense
	c. regular plural forms
	d. possessive pronouns
	e. compound possessive forms
	f. well-constructed sentences
	g. appropriate punctuation
		6. Manipulating conventional forms; demonstrating proficiency in following conventions in speaking and writing:
		
		*a. passives
		b. agreement of subject and verb
		  — compound structures
		  — indefinite pronouns
		  — collective nouns
		c. present and past perfect tenses; past and future progressive tenses
		d. plural possessive nouns
		e. irregular plurals
		f. pronoun case and number
		g. appropriate punctuation
			6. Manipulating form and convention for stylistic effect demonstrating proficiency in the use of conventional structures and forms:
			
			a. the passive voice in reporting scientific experiments and the news
			b. troublesome collective nouns, i.e. both singular and plural
			c. possessive phrases
			d. plurals of foreign words
			e. verb phrases
			  — verb tenses in complex sentences
			  — subjunctive mood
			  — conditional modals and auxiliaries
			f. appropriate punctuation

*indicates optional content

CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)

Part 3 — Research, Study and Composition
1. Different sources of information or references have different uses:
  a. human resources
  b. real and vicarious experience
  c. print and non-print materials
	1. Locating and becoming familiar with a great variety of sources of information including:
	  a. personal experiences
	  b. experiences of others
	  c. dictionaries
	  d. simple thesauruses
	  e. encyclopaedias
	  f. newspapers
	  *g. periodicals
	  h. television and radio guides
	  *i. pamphlets
		1. Discriminating among the purposes of various sources of information and the parts thereof, including:
		  a. table of contents
		  *b. bibliographical information
		  c. index
		  *d. appendices
		  e. preface
		  f. glossary
		  *g. indexes to reference materials (e.g. card catalogue, *The Reader's Guide to Periodical Literature*)
		  f. periodicals and pamphlets
			1. Discriminating among the purposes of specific sources of information; and identifying the biases associated with various other sources of information:
			  a. bibliographical information
			  b. appendices
			  c. indexes to reference materials
			  d. distinguishing fact from opinion
			  *e. assessing the reliability and validity of human and other resources

2. The process of research moves from using general references to using specific references.	2. Efficiently and effectively extracting information from a variety of sources using summarization skills.	2. Extracting different kinds of information from different sources; effectively combining information.	*2. Selecting reliable sources from a diversity of available materials; assessing the reliability of information gathered.

3. In the process of composing (in all subject areas) it is necessary to summarize, synthesize, and evaluate available information, ideas and experiences.	3. Developing summarization skills:
	  a. ordering ideas and events; reflecting the logical order of ideas and events
	  b. recognizing classifications; arranging information according to similarities and differences
	  *c. interpreting charts, diagrams, and graphs
	  d. identifying main ideas and relevant details, attributes, and definitions
	  e. locating and writing topic sentences
	  f. discovering the relationship between a composition and its title; titling compositions effectively
	  g. identifying key words; utilizing key words and expressions to achieve coherence
		3. Developing the skills of synthesization:
		  a. categorizing according to time, place, attributes
		  *b. combining and comparing information from different sources
		  c. identifying and utilizing examples and illustrations
		  d. recognizing conclusions; drawing conclusions from fact, opinion, examples, and illustrations
		  e. limiting a topic through the use of title and topic sentences, and the key words therein
		  f. making effective transitions between sentences and between paragraphs
		  g. combining effectively narration, description and exposition
			3. Developing evaluation skills:
			  a. judging the relevance and validity of information
			  b. making inferences, predictions, conclusions, projections
			  c. assessing cause and effect relationships
			  d. weighing the order of importance of details
			  e. becoming aware of need to assess the personal bias of the author
			  *f. becoming aware of need to assess the social, political and personal context of the author and of sources
			  g. becoming aware of need to evaluate the author's purpose
			  h. recognizing need to assess the validity of an author's assumptions
			  *i. determining the adequacy and validity of argument

*indicates optional content

CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)

4. Summarization, synthesization, and evaluation skills must be effectively combined and applied in all listening, speaking, reading, writing, and viewing tasks.	4. Applying summarization skills when listening, speaking, reading, writing, and viewing:
	
	  a. reading, listening and viewing for main ideas and supporting details
	
	  b. writing sentence outlines and sentence summaries of oral, written and visual material
	
	  c. making running notes while listening, reading and viewing
	
	  d. writing narrative, descriptive, and expository paragraphs
	
	  e. composing oral and written reports
	
	  f. story-telling — orally, visually, and in writing
	
	  *g. debating
	
	  h. illustrating ideas using pictures and posters
	
	  *i. plotting information on charts and graphs
		4. Utilizing synthesization skills in the following tasks:
		
		  a. identifying topic sentences when listening and reading
		
		  b. recognizing examples and illustrations, and techniques of persuasion when listening, reading, and viewing
		
		  c. writing topical outlines of oral, written, and visual material
		
		  d. making formal notes from running notes
		
		  e. writing paragraph summaries
		
		  *f. writing and presenting minutes from meetings and committee notes
		
		  g. writing paragraphs and essays which compare, persuade, explain, or interpret
		
		  h. combining narration, description and exposition effectively through report writing, storytelling, friendly letters, personal essays
		
		  i. offering conclusions based on the preceding development of ideas in oral, written, and visual material
		
		  *j. illustrating ideas by producing slide shows and tape recordings
			4. Applying evaluation skills in the performance of the following tasks:
			
			  a. writing précis, reviews, and editorials based on oral, written, and visual material
			
			  *b. producing documentaries
			
			  c. writing paragraphs and essays which provoke thought, interest, discussion, action, debate and investigation
			
			  *d. critiques

5. Understanding and applying the writer's craft leads to improved writing proficiency.	5. Demonstrating proficiency by:
	
	  a. proofreading for errors
	
	  b. editing
		5. Demonstrating writing proficiency by:
		
		  a. proofreading for errors
		
		  b. editing
			5. Demonstrating writing proficiency by:
			
			  a. converging on a focal idea in concluding statements and paragraphs
			
			  b. sustaining interest and point of view
			
			  c. provoking further thought and action through concluding statements and paragraphs
			
			  d. utilizing stylistically different paragraphs purposefully and effectively in essay writing
			
			  e. proofreading and editing

CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)

Part 4 — Expressed Thought and Values

CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)

1. Expressed thought should provide opportunity for personal growth:
  a. critical examination and evaluation
  b. enjoyment and entertainment
  c. enrichment
	1. Demonstrating appreciation of expressed thought:
	  a. enjoying the sound of poetry
	  b. recalling literary passages
	  c. relating the experiences of others to personal experience
	  d. identifying and being aware of attitudes and values expressed in literature
	  e. recognizing the human element, i.e., the human predicament in literature
	  f. broadening personal experience of the physical world through listening, reading and viewing
	  g. becoming aware of changing values in society and in individuals
	  h. using literary form and techniques in creative compositions
		1. Demonstrating appreciation of expressed thought:
		  a. relating values expressed in literature to contemporary values
		  b. being sensitive to the human predicament
		  c. broadening personal experience of social customs and values through reading and viewing
		  d. understanding individual and social reactions to change
		  e. using literary form and techniques in creative compositions
			1. Demonstrating appreciation of expressed thought:
			  a. evaluating and identifying with the values expressed in literature
			  b. empathizing with the human predicament
			  c. relating the physical and social world as revealed in literature to the real world
			  d. effecting change in individual and social values
			  e. using literary form and techniques in creative compositions

2. Expressed thought may be studied in terms of the communication process.	2. Interpreting the message and speculating upon the author's (poet's, filmmaker's, journalist's, historian's, scientist's) purpose (e.g. entertain, inform, explain).	2. Discovering the stimulus that motivated the message; becoming familiar with the encoder (background of experiences).	2. Decoding and responding with a purpose; understanding the medium and the mode of the message (e.g. relating form and content; relating person's background of particular experience to the new experience).

*3. The social, economic, historical, and spiritual conditions of the time are reflected in expressed thought.	*3. Understanding the context of expressed thought:
	  a. the oral tradition in literature, and non-print verbal forms
	  b. the effect of literacy on communication needs
		*3. Understanding the context of expressed thought:
		  a. the introduction of verbal print forms
		  b. the effect of technology and the knowledge explosion on communication needs
			*3. Understanding the context of expressed thought:
			  a. the effect of media on the literary tradition
			  b. the effect of the population explosion, affluence, diversity among people, and increased consumerism on man's communication needs

*4. Technological advances have effected changes in expressed thought (form and content).	*4. Differentiating visual, print, and non-print forms of communication.	*4. Recognizing the effects of technological advances on the literary tradition.	*4. Manipulating and combining forms to achieve a purpose, e.g. stage drama, short story, television drama.

CONCEPTS	SKILLS (GRADE 7)	SKILLS (GRADE 8)	SKILLS (GRADE 9)
5. Expressed thought (e.g. novels, short stories, poetry, dramas, essays, films) has certain characteristic features and a vocabulary to identify them.	5. Identifying the elements of form, content, and literary technique: a. the elements of plot, i.e. introduction, problem, climax, outcome b. the description and development of character c. the physical setting, i.e. time and place; *mood d. individual conflicts, i.e., protagonist *vs.* antagonist e. point of view f. figurative language (simile, metaphor, personification, puns, spoonerisms, malapropisms, hyperbole, visual imagery) g. sound devices (end rhyme, repetition, onomatopoeic words) h. visual devices (juxtaposition to show contrast, colour as a means to compare or categorize, lighting to show time, shape and size to show dimension, space and balance)	5. Understanding the elements of form, content, and literary technique: a. the structure of plot, i.e., introduction, conflict, complications, climax, outcome b. motivation for action and reaction by characters c. setting, i.e. physical attributes of location d. social conflict, i.e. between social groups or within individuals e. point of view *f. mood g. figurative language (mixed and extended metaphor, imagery) h. sound devices (internal rhyme, alliteration, imitative harmony) i. literary devices (rhyme, rhythm patterns, flashback, flashforward, foreshadowing) j. visual devices (colour and lighting to reflect mood, shape and size to compare, space and balance)	5. Explaining the elements of form, content, and literary technique: a. the structure of plot, i.e. introduction, conflict, complications, climax, outcome, denouement, plot patterns b. character types, dramatic role c. emotional and spiritual setting, the conditions of the time d. cultural and historical conflicts e. point of view *f. theme as central insight g. figurative language h. sound devices (assonance and consonance) i. visual devices (colour to reflect values, i.e. the symbolic use of colour and lighting to emphasize or focus; effective use of space in making presentations, e.g. drama and debating) j. literary devices — irony and symbolism (awareness only)

*indicates optional content

RECOMMENDED LEARNING RESOURCES

Communication Texts

1. *Action English I*   (Grade 7)
   Action English II (Grade 8)
   Action English III (Grade 9)
   — Action English Series, Gage Educational Publishing

2. *Timescope, Time 1, Time 2, Time 3, Time 4* (Grade 7)
   Peoplemirrors, People 1, People 2, People 3, People 4 (Grade 8)
   Language Is (Grade 9)
   — Nelson Language Stimulus Program & Language Matters, Thomas
     Nelson & Sons (Canada)

3. *Patterns of Communicating, Book 1* (Grade 7)
   Patterns of Communicating, Book 2 (Grade 8)
   Patterns of Communicating, Book 3 (Grade 9)
   — Patterns of Communicating Series, D.C. Health Canada

4. *Cambridge Writers Program*
   — *Books 1 - 4*   (Grade 7)
   — *Books 5 - 8*   (Grade 8)
   — *Books 9 - 12* (Grade 9)
   — Gage Educational Publishing
     *This series is recommended to accompany *Language Stimulus/
     Language Matters* and/or *Action English.*

5. *Grammar Is* (Grade 9)
   — Language Matters Series, Thomas Nelson & Sons (Canada)
     *This text is recommended at the Grade 9 level to accompany *Language
     Stimulus/Language Matters* and/or for *Action English.*

Literature Texts

1. *Challenge* (Grade 7)
   Viewpoint (Grade 8)
   Dialogue (Grade 9)
   — Action Series, Macmillan Company of Canada

2. *Experiences* (Grade 7)
   Explorations (Grade 8)
   Reflections (Grade 9)
   — John Wiley & Sons Canada

MATHEMATICS
GRADE SEVEN

Prescribed References

Ebos, Frank et al. *Math Is 1.*
Don Mills: Thomas Nelson & Sons, 1975.

Elliott, H. A. et al. *Holt Mathematics 1.*
Toronto: Holt, Rinehart & Winston, 1976.

Fleenor, Charles R. et al. *School Math 1.*
Don Mills: Addison-Wesley, 1974.

Course Content

This section briefly outlines various skills and understandings which the Grade 7 student should acquire.

Number Systems

A. *Whole Numbers*

1. Maintains all previously developed skills and ideas; uses symbols and notation as illustrated below:

    a. Multiplication

       i. $3 \times 4 = 3(4)$ ii. $3x = 3 \cdot x$

    b. Division

       i. $\frac{9}{3} = 9 \div 3 = 3\overline{)9}$ ii. $\frac{x}{9} = x \div 9 = 9\overline{)x}$

2. Understands the basis of the distributive property.

3. Evaluates an expression by using properties to produce short cuts in computation. (Limit: commutative, associative, distributive.)

    eg. $4 \times 23 \times 25 = n$
    $100 \times 23 = n$

4. Evaluates expressions involving the order of operations such as the following:

    $7 + 5 - 4 \times 3 + 1$

5. Writes mathematical sentences for English sentences.

6. Solves word problems which can be solved by addition, subtraction, multiplication or division, using whole numbers.

7. Solves word problems containing extraneous information. (Limit to whole numbers.)

8. Recognizes prime numbers to 50.

9. Lists the set of factors for whole numbers. (Limit: 200.)

10. Expresses a number as a product of factors.

11. Determines whether a number is divisible by 2, 3, 5 or 9.

12. Understands that division by zero is undefined.

13. Identifies patterns or order in number arrangements such as addition tables, multiplication tables, or series of numbers.

B. *Rational Numbers*

1. Maintains previously developed skills and ideas using decimals (particularly multiplication and division of powers of 10).
2. Demonstrates the need for fractional numbers using concrete examples.
3. Uses the dividend unit as a number line to order rationals.
4. Demonstrates knowledge of the fractional numbers by plotting a given set on a number line.
5. Divides concrete objects into halves, quarters, eighths, and sixteenths, and thirds, sixths, and twelfths.
6. Using a divided unit, measures something larger than the unit. Uses the fraction symbol a/b , mixed numerals, and decimal notation to denote the measure.
7. Writes equivalent fractions and can determine whether fractions are equivalent.
8. Reduces any fraction to its basic form. (Limit: 2-digit denominator.)
9. Converts fractions to decimals and vice versa with emphasis on tenths, hundredths, thousandths, halves, quarters and fifths.
10. Converts mixed numbers to improper fractions and vice versa.
11. Using concrete materials as measures, adds and subtracts fractions.
12. Performs the operations of addition and subtraction with proper fractional numbers. (Emphasis on denominators such as halves, quarters, fifths and tenths.)
13. Solves word problems involving decimals.
14. Solves word problems containing extraneous information.

Ratio and Proportion

1. Writes ratios.
2. Writes equivalent ratios.
3. Uses equivalent ratios to solve for the unknown numerator or denominator.
4. Solves word problems involving ratios.
5. Converts ratios to percents.
6. Solves percent problems using proportions.
   a. Solves for percent;
   b. Having percent, solves for the unknown quantity.

Measurement

1. Maintains previously developed skills.
2. Estimates the measure of various objects (linear, capacity, mass) in SI units.
3. Solves problems using measuring instruments (ruler, scales).
4. Constructs selected angles using protractor, compass, or Mira (to 180°) as directed by the teacher.

5. Estimates the size of a given angle within limits specified by the teacher.

6. Writes mathematical sentences for English sentences.

7. Performs the four basic operations in SI units.

8. Calculates perimeters of polygons with or without a formula.

9. Calculates areas of triangles, rectangles, and parallelograms.

10. Solves word problems which can be solved by addition, subtraction, multiplication, or division.

11. Solves word problems containing extraneous information.

12. Constructs diagrams completely labelled with relevant numbers or measures.

Geometry

1. Maintains previously developed skills.

2. Creates and discusses simple repeated patterns in terms of translations (slides), reflections (flips), or rotations (turns).

3. Draws patterns and designs using compass only.

4. Constructs polygons using protractor and straight-edge, compass and straight-edge, or Mira (as specified by the teacher).

5. Identifies altitudes or triangles and quadrilaterals.

6. Identifies diagonals of polygons.

7. Constructs the image of a figure given a combination of transformations (translations, reflections, rotations).

8. Given congruent figures on geopaper, names the transformation or combination of transformations that move one figure on to the other.

9. Represents a translation by a slide arrow, a reflection by a reflection line, and a rotation by a turn center and turn arrow.

10. Classifies polygons according to the number of sides.

11. Identifies and classifies angles according to their measure.

12. Identifies and classifies triangles with respect to:

    a. measures of sides

    b. measures of angles

    c. lines of symmetry

13. Determines the angle sum of triangles.

14. Generates a perimeter formula for any regular polygon.

Graphing

1. Given a number and a procedure, gives the second element with which the number is paired:

    a. in numerical settings

    b. in practical settings (postage, packaging, distance a bicycle travels)

2. Graphs points of a linear function, given the ordered pairs, and notes that these points lie on a line.

3. Reads, interprets and applies information from pictographs, line graphs, or circle graphs.

4. Constructs line graphs and bar graphs.

Algebra

1. Evaluates expressions by substituting for the variables (using whole numbers and decimals).

2. Solves the following types of conditions (equations) involving whole numbers or decimals:

   a. $a + x = b$ b. $ax = b$ c. $ax + bx = c$

3. Verifies solutions of conditions (equations) by substitution.

GRADE EIGHT

Prescribed References

> Ebos, Frank et al. *Math Is 2.*
> > Don Mills: Thomas Nelson & Sons, 1975.

> Elliott, H. A. et al. *Holt Mathematics 2.*
> > Toronto: Holt, Rinehart & Winston, 1976.

> Fleenor, Charles R. et al. *School Math 2.*
> > Don Mills: Addison-Wesley, 1974.

Course Content

The following section outlines various skills and understandings which the Grade 8 student should acquire.

Number Systems

A. *Whole Numbers*

1. Understands and uses the terms *exponent, base, power, squared, cubed,* and *to the nth power.*
2. Understands and uses the following properties:

   a. $a^x \cdot a^y = a^{x+y}$

   b. $a^x \div a^y = a^{x-y}$

3. Writes numbers in various forms:

   a. expanded form of whole numbers using exponential notation

   b. whole numbers in scientific notation.

4. Writes the values for powers (whole numbers bases and exponents).
5. Maintains previously developed skills in problem solving.
6. Given sets of data, finds patterns which are functions.

B. *Integers*

1. Demonstrates the need for integers.
2. Develops the integers using whole numbers and directed segments.
3. Compares the whole numbers and integers by plotting both sets on a number line.
4. Demonstrates the use of identity elements and the zero property.
5. States the additive inverse of any integer.
6. Performs the operations of addition, subtraction, multiplication and division with integers.
7. States the multiplication inverse of any integer other than zero.
8. Evaluates integral expressions by using the properties to produce short cuts in the computation. (Limit: commutative, associative, distributive.)

   e.g. $-6 + {}^+4 + {}^+6 = n$

   $(-6 + {}^+6) + {}^+4 = n$

   $0 + {}^+4 = n$

9. Orders integral expressions by using $<$, $>$, or $=$.
10. Demonstrates the relationship between integers, whole numbers, and fractionals.
11. Writes mathematical sentences for English sentences.
12. Solves world problems which can be solved by addition, subtraction, multiplication or division. (Limit to integers.)
13. Solves world problems containing extraneous information.
14. Locates any point defined by an ordered pair of integers (in all four quadrants).
15. Illustrates an appreciation for numbers by working on pattern problems.

C. *Rationals*

1. Maintains previously developed skills in computation with fractional and decimal numerals.
2. Performs the operations of addition, subtraction, multiplication, and division with positive rational numbers, using algorithms.
3. Demonstrates the need for rational numbers.

   e.g. $-5 \div 2 = x$, closure property.
4. Recognizes rational numbers as all numbers which may be expressed in the form a/b, $b \neq 0$, or as infinite repeating decimals.
5. Compares the rational numbers and integers using a number line.
6. Orders rational numbers using $<$, $>$, or $=$.
7. Writes mathematical sentences for English sentences.
8. Solves word problems which can be solved by addition, subtraction, multiplication, or division. (Limit to positive rationals.)
9. Solves problems containing extraneous information.

Ratio and Proportion

1. Maintains previously developed skills.
2. Converts decimals to percents.
3. Converts percents to decimals or common fractions.
4. Solves word problems involving simple interest, commission, sales tax, and single discount.
5. Solves word problems involving percent of increase or decrease.

Measurement

1. Maintains previously developed skills.
2. Develops facility in area measurement using SI units cm^2, m^2.
3. Uses the appropriate SI unit in area measurement and demonstrates the inter-relatedness of one unit to another.
4. Calculates the perimeter of polygons using a formula.
5. Calculates the area of triangles and quadrilaterals using a formula.

6. Extends knowledge of area to hectare and expresses area using proper symbols.

7. Uses the appropriate SI unit and symbol when measuring and expressing volume.

8. Understands the inter-relatedness of volume units cm^3 through m^3.

9. Develops and uses formula to calculate circumference and area of circles using appropriate SI units.

10. Solves word problems involving situations described in SI units. (Students should be encouraged to draw diagrams and estimate.)

Geometry

1. Maintains previously developed skills.

2. Uses compass and straight-edge to construct angles.

3. Uses compass and straight-edge to bisect angles, construct perpendicular bisectors, and construct specified angles (90°, 45°, 60°, 30°).

4. Constructs perpendiculars, bisectors, and specified angles, and bisects angles using reflections.

5. Identifies and classifies polygons.

6. Identifies pairs of angles: supplementary, complementary, corresponding, linear, opposite and adjacent.

7. Identifies and classifies quadrilaterals by examining relationships between:
   a. lines of symmetry
   b. parallel sides
   c. measures of angles
   d. measures of sides.

8. Generates an area formula for specified quadrilaterals (parallelogram, rectangle, square).

9. Uses slide notation to describe various translations (slides).
   e.g. 3R, 2D for 3 right and 2 down.

10. Describes translations using ordered pairs.
    e.g. (+3, -2) for 3 to right, 2 down.

11. Obtains the rotation image for any polygon.

Graphing

1. Generates a set of ordered pairs in a linear function given the defining equations.

2. Graphs points of a linear function given ordered pairs of integers, and notes that those points lie on a line.

3. Constructs circle graphs.

Algebra

1. Evaluates expressions by substituting for the variables, using whole numbers, fractions, decimals, integers, and rationals.

2. Solves the following types of conditions (equations), in which the solution does not involve computation with negative fractional numbers:

   a. $a + x = b$ d. $\dfrac{x}{a} = \dfrac{b}{c}$ e. $ax + bx = c$

   b. $ax = b$

   c. $ax + b = c$

3. Writes mathematical sentences for English sentences describing real life or abstract number relationships.

4. Solves word problems involving abstract number relationships.

GRADE NINE

Prescribed References

Ebos, Frank et al. *Math Is 3*.
Don Mills: Thomas Nelson & Sons, 1976.

Elliott, H. A. et al. *Holt Mathematics 3*.
Toronto: Holt, Rinehart & Winston, 1978.

Krysak, Walter P. et al. *Math Probe 1*.
Toronto: Holt, Rinehart & Winston, 1976.

Course Content

The following section outlines various skills and understandings which the Grade 9 student should acquire.

Number Systems

A. *Whole Numbers*

1. Writes the values for powers (whole number exponents).
2. Understands and uses the following properties:

   a. $(a^x)^y = a^{xy}$

   b. $a^{-x} = \dfrac{1}{a^x}$

   c. $a^0 = 1, a \neq 0$

3. Maintains previously developed skills in problem solving.
4. Expresses a number as a product of factors (including prime factorization).

B. *Integers*

1. Maintains previously developed skills.
2. Simplifies expressions involving the order of operations (four arithmetic operations and powers).

C. *Rationals*

1. Maintains previously developed skills.
2. Writes any number in scientific notation and vice-versa.
3. Recognizes a need for negative rationals.
4. Writes positive or negative rationals in the lowest terms or higher terms.
5. Adds, subtracts, multiplies and divides positive or negative rational numbers.
6. Changes positive or negative rationals in the form a/b, $b \neq 0$ to decimals.
7. Changes rational numbers in decimal form to the form a/b.
8. Solves problems involving positive and/or negative rationals (emphasis on decimals).
9. Estimates products and quotients to determine if an answer is reasonable.
10. Estimates square roots of numbers.
11. Uses tables to determine the square root of a number.

Ratio and Proportion

1. Maintains previously developed skills.
2. Uses ratios to solve problems involving:
    a. percentages
    b. distance, speed and time
    c. profit, interest, commission, tax, discount, premiums.
3. Uses ratios to construct scale drawings.

Measurement

1. Maintains previously developed skills.
2. Calculates surface areas (SI units) of prisms and cylinders using formulas.
3. Calculates the area of regular polygons.

Geometry

1. Maintains previously developed skills.
2. Demonstrates knowledge of the Theorem of Pythagoras through an ability to solve problems.
3. With compass and straight-edge, constructs triangles congruent to given triangles, using SSS, SAS, and ASA.
4. Constructs regular polygons.
5. Uses such terms as *edges, faces, lateral face, base, height,* and *slant height* in examining prisms, pyramids and other polyhedra.
6. Classifies right prisms and right pyramids, given models of various types.
7. Constructs models of right prisms, right pyramids or regular polyhedra as specified by the teacher.
8. With assistance, develops formulas to measure volume and surface area of right prisms and cylinders.
9. Given word problems or diagrams and formulas, solves volume and surface area problems.

Graphing

1. Makes graphs from mathematical data and recognizes the dependent variable and the relation constant. (Limit to linear relations.)
2. Pictures square roots of numbers graphically and reads approximate roots of nonperfect squares from the graph.

Algebra

1. Solves any first degree equation in one variable with rational coefficients.
2. Writes word problems for given mathematical statements.
3. Solves a variety of problems by writing an equation in one variable and solving same.
4. Knows that letters represent variables.

5. Knows that formulas represent rules or definitions that express a relation between variables in mathematics and/or science.

6. Interprets mathematical data and can express it as a relationship. (Limit to linear relations using a non-formal approach.)

7. Applies mathematical principles of variation and formulas to real situations.

8. Predicts the effect of altering specific elements of a formula.

9. Solves problems which require the use of a formula.

10. Identifies specific algebraic terminology: *constants, variables, terms* and *factors* in an expression.

11. Evaluates expressions by performing the operations in correct order.

12. Classifies polynomials as monomials, binomials or trinomials.

13. States the degree of a polynomial and writes the polynomial in standard form.

14. Translates English expressions into algebraic expressions.

15. Identifies the numerical coefficient of a monomial.

16. Identifies "like" and "unlike" terms and is able to combine like terms.

17. Finds the sum and difference of polynomials by re-ordering the elements.

18. Finds the products and quotients of monomials.

19. Finds the product of a monomial and a polynomial.

20. Factors a polynomial by taking out the greatest common factor.

21. Finds the product of binomials.

22. Factors trinomials $ax^2 + bx + c$, where a = 1.

Grade 9 Optional Units

Where time permits, optional units for study may be selected from among the following topics. Please see the *Curriculum Guide for Junior High Mathematics, 1978* for unit outlines, teaching suggestions and resources.

1. Probability
2. Statistics
3. History of Mathematics
4. Consumerism
5. Problem Solving
6. Motion Geometry
7. Hand-Held Calculators
8. Locally Developed Unit(s)

SCIENCE

OBJECTIVES OF SECONDARY SCHOOL SCIENCE FOR ALBERTA

The learning of science as an area of human endeavor should provide the student with a scientific literacy which enables him or her to assume an active and useful role as a citizen in a democratic society. It may be assumed that this literacy is best achieved by considering the individual needs of students and through independent study and learning.

The objectives of secondary school Science are:

1. To promote an understanding of the role that science has had in the development of societies
   a. history and philosophy of science as part of human history and philosophy
   b. interaction of science and technology
   c. effect of science on health, population growth and distribution, development of resources, communication, transportation.

2. To promote an awareness of the humanistic implications of science
   a. moral and ethical problems in the use and misuse of science
   b. science for leisure-time activities.

3. To develop a critical understanding of those current social problems which have a significant scientific component in terms of their cause and/or their solution
   a. depletion of natural resources
   b. pollution of water and air
   c. overpopulation
   d. improper use of chemicals
   e. science for the consumer.

4. To promote understanding of and development of skill in the methods used by scientists
   a. processes in scientific inquiry such as observing, hypothesizing, classifying, experimenting and interpreting data
   b. intellectual abilities such as intuition, rational thinking, creativity, and critical thinking
   c. skills such as manipulation of materials, communication, solving problems in groups, and leadership.

5. To promote assimilation of scientific knowledge
   a. emphasis on fundamental ideas
   b. relevance of scientific knowledge through inclusion of practical applications
   c. application of mathematics in science
   d. inter-relationships between the sciences
   e. open-endedness of science and the tentativeness of scientific knowledge.

6. To develop attitudes, interests, values, appreciations, and adjustments similar to those exhibited by scientists at work.

7. To contribute to the development of vocational knowledge and skill
   a. science as a vocation
   b. science as background to technical, professional and other vocations.

Organization of Program for Grades 7, 8 and 9

Approximately 80 hours of instructional time shall be devoted to the core topics and approximately 20 hours to elective topics. Content of the elective units is to relate to the core in one of three ways:

a. an extension of a core topic (breadth)
b. an in-depth, intensive study of a core topic
c. a practical application of a core topic.

GRADE SEVEN

Prescribed References

Carter, J. L. et al. *Life Science: A Problem Solving Approach.* Scarborough: Ginn & Co., 1977.

Smallwood, W. L. *Challenges to Science: Life Science.* Scarborough: McGraw-Hill, 1976.

Objectives

After participating in the activities and completing the assignments associated with this course, the student should be able to:

7.1 Demonstrate a knowledge of and be able to discuss the identified major concepts and their subconcepts within the context of a study of life science. These major concepts are:

All sets of objects including living things may be classified into groups having common characteristics.

Cells are the unit of structure and function of most living things.

Living things carry on certain fundamental processes to sustain and perpetuate life.

All living things interact with and are interdependent upon each other and their environment.

7.2 Acquire such investigative skills associated with science as:

Observing with all the senses
Classifying related objects or ideas
Quantifying measured data
Manipulating data to identify the patterns
Identifying problems clearly so that the variables may be controlled or manipulated
Interpreting data, making inferences leading to hypotheses and predicting future behavior.

7.3 Identify and discuss the limitations of experimental data in terms of the underlying assumptions and the identified problem.

7.4 Assume a responsibility for keeping the workspace neat and tidy by practicing safe and careful work habits.

7.5 Recognize and be able to cite examples of the contributions made by such historical figures as Robert Hooke, Louis Pasteur.

7.6 Investigate factors related to the wise use of renewable resources and man's impact upon the environment.

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Concepts

Subconcepts

7.1 All sets of objects including living things may be classified into groups having common characteristics.

1. Classification makes thinking about a large number of things simpler and easier.
   a. Within large groups, members share some common characteristics; within smaller subgroups, members share a greater number of common characteristics.
   b. Living things may be classified as protist, plant, or animal.

7.2 Cells are the unit of structure and function of most living things.

1. The techniques and tools of scientists aid in observing things.
   — Microscopes are required to study cells.
2. Plant and animal cells share many common characteristics.
3. Cells live independently or in groups.
   a. Single-celled organisms perform all the functions necessary for life.
   b. Some cells in multicellular organisms are specialized to carry out specific functions.

7.3 Living things require energy to carry on certain fundamental processes in order to sustain life.

1. Organisms require nutrients for energy.
   a. Green plants use the sun's energy to produce food.
   b. Energy from stored food is usable when organisms break down food into nutrients.
      — Some basic foods are starch, sugar, protein, fats and oils.

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Concepts	Subconcepts

Concepts

Subconcepts

c. All living things obtain their energy from respiration.
— Organisms obtain oxygen from their environment in a variety of ways.
— Oxygen enables organisms to burn food for energy.

d. Food products and gases must be available to all cells throughout an organism.
— Cells receive nourishment and eliminate waste through the process of diffusion.
— More complex organisms show a need for specialized circulatory systems.

2. Energy enables organisms to carry out activities in order to sustain life.

a. Organisms obtain nutrients in a variety of ways.

b. Growth of an organism may result in change in structure or proportion, or an increase in size.

c. Organisms react to their internal and external environment.
— Different species may have different ways of receiving and responding to stimuli.
— Organisms differ in their adaptation to the environment.

d. Organisms must reproduce to ensure survival of the species.
— Organisms may reproduce sexually, asexually, or by both means.
— An offspring inherits certain characteristics from its parents.
— There are many variations within a population.

7.4 All living things interact with and are interdependent with each other and their environment.

1. Life on our planet is possible in the ecosphere.

a. Living and non-living things interact within ecosystems.

b. Communities of organisms exist within the ecosystems.

2. The members of each community show adaptations which are necessary for survival in the community.

a. Some organisms are specific to certain communities (distribution).

b. Some organisms may exist in more than one community (tolerance).

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Subconcepts

3. An organism is the product of both heredity and environment.

4. The environment and the distribution of organisms are in a state of continual change.
   a. Nature constantly recycles materials.
   b. Changes may take place over an extended period of time.

ELECTIVES

Elective topics are to be chosen from the following list. A minimum of one topic is to be studied.

7.1 Mankind's influence may increase the rate of change with beneficial or harmful results to the environment.

7.2 Man commands the use of a great supply of energy to change the environment to his liking.

7.3 Pollution due to man's production and use of energy can be minimized.

7.4 The preservation of man's biological resources depends on awareness and the positive action of each individual.

7.5 A simple key may be used to facilitate identification of organisms.

7.6 A locally developed unit.

NOTE: Outlines for each elective, with the exception of 7.6, are provided in the Curriculum Guide along with a list of references.

GRADE EIGHT

Prescribed References

Heller, R. L. et al. *Challenges to Science: Earth Science.* Scarborough: McGraw-Hill, 1976.

Jackson, J. H. and E. D. Evans. *Spaceship Earth: Earth Science.* Markham: Houghton-Mifflin, 1976.

Objectives

After participating in the activities and completing the assignments associated with this course, the student should be able to:

8.1 Demonstrate a knowledge of and be able to discuss the identified major concepts and their associated subconcepts within the context of a study of the earth. These major concepts are:

> A perspective of the position and motion of the earth in space is gained by celestial observations and measurements.
> Various theories attempt to explain the origin of the solar system and the universe.
> The Sun is a typical star.
> Solar gravity and planetary inertia maintain a system of planets in orbit.
> The surface of the earth and its inhabitants are surrounded by atmosphere of air.
> Local conditions in the atmosphere are referred to as weather.
> The crust of the earth is formed of rocks.
> The crust of the earth is constantly being changed.

8.2 Demonstrate increasing competence in the investigative skills associated with science:

> Observing with all of the senses
> Manipulating technical instruments
> Collecting reliable data
> Manipulating the data to identify any patterns
> Interpreting data, making inferences leading to hypotheses, and predicting future behavior.

8.3 Participate in a study of some local phenomena such as the weather patterns over a period of time, collect the data and relate these to the regional patterns and the long-term climatic conditions.

8.4 Recognize and be able to cite the contributions to modern theories of such scientists as Galileo, Kepler, Hutton and Wegener.

8.5 Examine topics of current scientific interest in an objective and open-minded manner.

Concepts

Subconcepts

8.1 A perspective of the position and motion of the earth in space is gained by celestial observation and measurements.

1. Through history man has searched for a systematic way of orienting himself and explaining his observations.

2. The motions of the earth with respect to its neighbors have a profound effect on man.

3. The many tools and technologies used by earth-space scientists help develop explanations of the universe.

4. Matter is clustered more densely in some parts of the universe.
   a. The largest local clusters of matter are galaxies.
   b. Stars and other celestial bodies can be classified and grouped.

8.2 Various theories attempt to explain the origin of the solar system and the universe.

1. Man's religions offer an explanation of the earth's origin.

2. Science views the origins in terms of observable processes.
   a. Big Bang Theory is widely held as a possible explanation.
   b. Many others hold that the Steady-State Theory is more acceptable.
   c. Solar system origins can be explained in other ways.

8.3 The Sun is a typical star.

Much of what we surmise about the stars comes from our observations of the sun.
   a. Radiation from the sun can be used to investigate its structure, motions, history and processes.

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Concepts	Subconcepts

b. Solar radiation is both beneficial and harmful to life on its planets.

8.4 Solar gravity and planetary inertia maintain a system of planets in orbit.

1. Planetary motion is predictable.

2. The members of this solar system differ in their physical characteristics and dynamic properties:
   — Several planets have satellites of their own.

3. The moon provides an opportunity to study an extra-terrestrial body.
   a. The earth and moon interact.
   b. The moon's environment is different from the earth's.

8.5 The surface of the earth and its inhabitants are surrounded by an atmosphere of air.

1. Air is matter.
   a. Air is a mixture of gases.
   b. Air has weight and exerts pressure which can be measured.

2. The atmosphere is heated by the sun's energy which is absorbed by the earth.
   a. Radiant energy from the sun is transformed into heat. Much of the incoming heat is absorbed by the earth and its oceans.
   b. Heat absorption by the earth varies.
      — Light-colored areas reflect more heat than dark areas.
      — Oceanic areas reflect more heat than continental areas.
      — The altitude of the sun above the horizon affects the heat absorbed.
   c. Absorbed heat is distributed by a number of mechanisms.
      — Radiation is a means by which a warm body loses heat.
      — Convection currents distribute heat quickly and efficiently.
      — The distribution of heat is also achieved by conduction.
      — Heat lost equals heat gained on a global scale.

Concepts	Subconcepts

3. The air of the atmosphere is in constant motion due to unequal heating and the rotation of the earth.
    a. There is a pattern to the planetary winds.
    b. Local winds are affected by land forms and bodies of water.

4. The water cycle is an important process which involves the atmosphere.
    a. Water vapor enters the atmosphere by evaporation.
    b. Water vapor eventually condenses as the air is cooled and becomes saturated.

8.6 Local conditions in the atmosphere are referred to as weather.

1. Different air masses exist within the atmosphere.
    a. Fronts form at the boundary between different air masses.
        — Fronts can be classified.
        — Changes in weather are often associated with fronts.
        — Violent storms are often associated with fronts.
    b. High pressure areas often serve to define the extent of air masses.
    c. Low pressure areas usually form in association with fronts.

2. Weather reports give information about local and global atmospheric conditions.
    a. The information is gathered by instruments at weather stations and by weather satellites.
    b. The information given includes reports of air pressure, air temperature, relative humidity, wind direction and speed, cloud cover and precipitation.
    c. The weather map is a record of the information gathered and is used to predict future weather.

8.7 The crust of the earth is formed of rocks.

1. Common minerals are found within the earth's crust.
    — Most minerals are made up of elements from a group of only nine naturally occurring elements.

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Concepts	Subconcepts

2. Rocks are formed from a mineral or a mixture of minerals.

3. Rocks can be categorized into three main groups.
   a. Initially all rocks were formed by the cooling magma of the earth.
      — Texture and mineral content of igneous rocks can be used for identification.
   b. Erosion and/or deposition form sedimentary rocks.
      — Grain size and/or mineral content of sedimentary rocks can be used for identification.
   c. Sedimentary and igneous rocks can be reconstituted to form metamorphic rocks.
      — Metamorphic rocks are classified on the basis of their mineral content and structure.

8.8 The crust of the earth is constantly being changed.

1. Landforms are being built up by movements within the crust.
   a. Earthquakes are the result of movements of masses of rock.
   b. Faulting and folding are the result of large forces in the crust.
   c. Volcanism is associated with faulting in the crust.

2. Weathering weakens rock formations.
   a. Mechanical weathering makes small pieces out of large ones.
   b. Chemical weathering changes the rock itself.

3. Erosion changes the landforms.
   a. Erosion is caused by running water.
   b. Erosion is caused by wind.
   c. Erosion is caused by glaciation.
   d. Erosion is caused by groundwater.
   e. Agents of erosion help lay down sediments.

4. Dynamic processes are at work within the earth.
   a. Forces acting on the crust result from the nature of the structure of the earth.
   b. Theories have been advanced to explain how forces have acted on the crust to produce the present landforms.
      — Continental drift, plate tectonics and sea floor spreading are theories advanced to explain crustal deformation.

ELECTIVES

Elective topics are to be chosen from the following list. A minimum of one topic is to be studied.

8.1 Materials from the crust have had an important influence on mankind's daily living.

8.2 Evidence for determining the past history of the earth comes from a study of the crust.

8.3 Matter in the universe appears to be moving at tremendous velocities.

8.4 The oceans form a large portion of the earth's surface.

8.5 A locally developed unit.

NOTE: Outlines for each elective, with the exception of 8.5, are provided in the Curriculum Guide along with a list of references.

GRADE NINE

Prescribed References

Bickel, C. L., et al. *Physical Science Investigations*. Markham: Houghton Mifflin, 1976.

Carter, J. L., et al. *Physical Science: A Problem Solving Approach*. Scarborough: Ginn and Co., 1977.

Heath, R. W. and R. R. McNaughton. *Physical Science: Interaction of Matter and Energy*. Toronto: D. C. Heath, 1976.

Townsend, R. D. and P. DeH. Hurd. *Energy, Matter and Change*. Agincourt: Gage and Co., 1973.

Objectives

After participating in the activities and completing the assignments associated with this course, the student should be able to:

9.1 Demonstrate a knowledge of and be able to discuss the identified major concepts and their associated subconcepts within the context of a study of physical science. These major concepts are:
    Matter occupies space and has mass.
    The forms and behavior of matter can be explained by the Kinetic Molecular Theory.
    Heat and temperature can be explained in terms of molecular motion.
    Energy enables work to be done and motion to be changed.
    Matter is composed of atoms and molecules.

9.2 Demonstrate proficiency in the scientific investigative skills of:
    Problem identification
    Outlining procedures and safe work habits
    Organizing observations and data
    Recording results
    Making inferences which relate to hypotheses
    Predicting future behaviors.

9.3 Identify and discuss the development of a major scientific concept such as the Kinetic Molecular Theory as it was explained by Galileo, Bacon, Thompson, Davy and Maxwell.

9.4 Participate in the routine management of the laboratory program by being responsible for the preparation of materials and equipment prior to and following laboratory periods.

9.5 Investigate scientific factors involved with a technological topic such as the development of alternative sources of energy.

Concepts

9.1 Matter occupies space and has mass.

Subconcepts

1. Fundamental to the process of science is the establishment of standards for making measurements.
   a. The development of standard units and systems of measurement has taken place slowly.
   b. Good measurement techniques are necessary in order to obtain meaningful data.
   c. All measurements are approximate.
   d. Relationships existing between measurement data are often more clearly defined and understanding clarified by graphing techniques.

2. Matter can be measured by determining its linear dimensions, surface area and volume.
   a. Length, surface area and volume of regular shaped solids can be directly measured.
   b. Volume of irregularly shaped solids may be found indirectly by liquid displacement.

3. Matter can be measured in terms of its mass and weight.
   — Mass and weight are two different measurements of matter.

4. Density is a characteristic property of any given sample of matter and therefore is useful for identification purposes.
   a. Molecular arrangement influences density.
   b. Differences in the density of materials accounts for floating and sinking bodies.

9.2 The forms and behavior of matter can be explained by the Kinetic Molecular Theory.

1. Matter is composed of tiny particles.
   a. Tiny particles of matter are called molecules.
   b. Molecules vary in size.
   c. Spaces exist between the molecules of matter.

2. Molecules are in a state of constant motion.
   a. Brownian movement provides indirect evidence of molecular motion.

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Concepts	Subconcepts

b. Molecular motion in solids may be vibrational about a fixed position.
c. Molecules in liquids may be able to slide or move over one another in random directions.
d. Molecules in gases may have considerable freedom of movement in random directions.
e. The greater the freedom and rate of movement of molecules of the same kind, the higher their energy content.

3. Molecular movement is the basis for diffusion.
   a. Diffusion is slow in solids due to limited molecular motion and their closely packed, orderly arrangement.
   b. Diffusion takes place more readily in liquids and gases.
   c. Rate of diffusion depends on the temperature of the substances.
   d. Rate of diffusion depends on the size of the molecules involved.
   e. Dissolving is a form of diffusion.
   f. Solutions are formed when molecules of one substance spread out evenly throughout another substance.
   —No boundaries between components of a solution can be observed.

4. Molecular motion results in evaporation.
   a. Evaporation involves a change in state from a liquid to a gas.
   b. Evaporation occurs as faster moving molecules near the surface escape.
   c. Evaporation produces a cooling effect.
   d. Different liquids evaporate at different rates.
   e. Rate of evaporation of a given liquid depends on:
      —Temperature of the liquid
      —Vapor content of the air above
      —Movement of air across the liquid surface
      —Surface area of the liquid that is in contact with the air.

9.3 Heat and temperature can be explained in terms of molecular motion.

1. Heat and temperature are related.
   a. Temperatures may be measured indirectly by utilizing the response of matter to changes in temperature.

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Subconcepts

  —An arbitrarily chosen standard is necessary in the construction of most temperature scales.

  —Several temperature scales have been devised (Celsius, Kelvin and others).

b. Heat is measured indirectly by the effects it produces.

  —Heat is measured by observing temperature changes of a known mass of water at a known initial temperature.

  —Heat is measured in joules.

c. Different substances absorb or release different amounts of heat, even though they have similar masses and undergo similar temperature changes.

  —The heat capacity of water is greater than that of most other substances.

  —Substances having high heat capacities are good coolants.

d. When a body at higher temperature is in contact with a body at a lower temperature, heat flows from the first to the second body.

  —Heat is conserved in that heat lost by one body is gained by the other.

  —Heat may be transferred by conduction, convection, or radiation.

2. Matter exists in different states.
   a. Matter can exist in solid, liquid or gas form.
     —Each state is characterized by definite general properties.
   b. The addition or removal of heat causes matter to change state.
   c. As any given pure substance changes state, its properties change but its composition does not.
   d. Temperature remains constant during a change of state.

3. A relationship exists between molecular motion and the volume occupied by matter.
   a. With few exceptions the volume of a solid increases as molecular vibrational motion increases.
   b. With the exception of water at temperatures below 4°C, liquids increase in volume as molecular motion increases.
   c. At constant pressure all gases expand uniformly as molecular motion increases.

Concepts	Subconcepts

9.4 Energy enables work to be done and motion to be changed.

1. Energy may be described as either kinetic or potential energy.

2. Energy is present in the universe in several forms.
   — Electrical energy
   — Chemical energy
   — Mechanical energy
   — Heat energy
   — Light energy
   — Nuclear energy
   — Gravitational energy
   — Magnetic energy

3. One form of energy may be changed into another.

9.5 Matter is composed of atoms and molecules.

1. Theories and/or models have been developed to assist in understanding atoms.
   a. All matter is made up of atoms.
   b. The atomic model has an internal structure consisting of protons and neutrons forming a central core or nucleus, and an outer structure of electrons.
   c. The various kinds of atoms are called elements.

2. A relationship exists between atoms and molecules.
   — Atoms can exist individually or in combination with other atoms of the same or different elements, and therefore, are the building blocks of molecules.

3. A relationship exists among elements, compounds and mixtures.

4. There is a difference between physical and chemical changes.
   a. Several examples of physical change are observable.
   — Physical properties of matter are determined by inter-molecular distances and forces.
   — A change in state represents one of the most common physical changes.

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Subconcepts

— Changes in molecular motion and intermolecular distances and forces of attraction (adhesion, cohesion) also account for physical changes.

b. Several examples of chemical change are observable.

— Molecular composition determines the chemical properties of matter.

— Most chemical changes require a great deal more energy than do physical changes.

ELECTIVES

Elective topics are to be chosen from the following list. If 9.1 is selected, a minimum of two sub topics are to be studied.

9.1 Many forms of energy exist which can be transferred from place to place or converted from one form to another.

— Work represents a transfer of energy (simple machines).

— Electrical energy can do work and can be changed to other forms of energy.

— Light energy can do work and can be changed to another form of energy.

— The energy of sound plays a significant role in mankind's daily living.

9.2 Liquid pressure can be used to reduce the force required to move an object.

9.3 Latent heat accounts for the energy required to cause a change in state of a substance.

9.4 A locally developed unit.

NOTE: Outlines for each elective, with exception of 9.4, are provided in the Curriculum Guide along with a list of references.

SOCIAL STUDIES

Alberta's social studies curriculum (Grades I-XII) is premised on the assumption that schools must help students in their quest for a clear, consistent, and defensible system of values. Two inter-related implications of this assumption for social studies instruction stand out: firstly, students must be enabled to explore and assess the nature of values that influence their personal and social lives; secondly, students must be assisted to develop the ability to make decisions pertinent to both their individual beings and their roles as active participants in their physical and social environments.

*Values to
Live By*

In keeping with the basic tenets of democracy (and with optimism about the nature of man and the efficacy of democratic ideals), the social studies program invites open inquiry into the definition and application of individual and social values. Such inquiry will offer students **experience in living** as **preparation for living.** It cannot be assumed that the ability to make decisions of either a personal or social nature is a skill that children are either born with or acquire incidentally. Rather, it is a skill that is developed as children acquire appropriate knowledge and analyze and clarify values, attitudes, and feelings that are contingent upon situations and issues. Stated differently, it might be said that knowledge is an essential component of the decision-making process but is not in and of itself sufficient. Values, attitudes, and feelings frequently determine what knowledge we will accept, and consequently, the nature of decisions that we make. It is necessary, therefore, for students to gain experience in identifying, clarifying, and assessing values, and establishing how they relate to the knowledge derived. In this way, children will come to know their own ideas and feelings as well as those of their peers and the adult generation; they will deal not only with "what is" but also with "what ought to be" and will acquire those skills they will need as intelligent shapers of their world.

ATTENDING TO AFFECTIVE AND COGNITIVE OBJECTIVES

A. The Valuing Process

Priority on valuing

Consistent with the above rationale, the objectives of the social studies program[1] place high priority on the valuing process. The valuing process involves three basic skills.[2] Students in the Alberta social studies should demonstrate that they are:

Choosing—
1. Identifying all known alternatives.
2. Considering all known consequences of each alternative.
3. Choosing freely from among alternatives.

Acting upon values

Prizing—
4. Being happy with the choice.
5. Affirming the choice, willingly and in public if necessary.

Acting—
6. Acting upon the choice.
7. Repeating the action consistently in some pattern of life.

Affective and cognitive aspects of valuing

As students engage in the valuing process, the experience will involve both emotional reactions and intellectual understandings. It is essential to distinguish these affective and cognitive capacities and to direct educational effort along both dimensions.[3]

B. Affective Objectives

Affective objectives emphasize a feeling tone, an emotion, or a degree of acceptance or rejection. To choose, prize and act consistently and effectively, students should demonstrate that they are:

—Aware of values, willing to take notice of values and giving controlled or selected attention to values.

[1]Please note that the objectives which follow are expressed in behavioral terms. They indicate the processes in which students should engage and, in a general way, identify the substantive content to which students' behavior should relate. In other words, the objectives include both processes and content.

[2]Raths, Louis, et al., *Values and Teaching* (Columbus, Ohio: Charles E. Merrill & Co., 1966).

[3]Scriven, Michael, "Student Values as Educational Objectives" (West Lafayette, Ind.:Social Science Education Consortium, 1966) p. 18.

*Internalizing
a value
complex*

—Responding to values with openness, willingness and satisfaction
—Accepting values, preferring values and committing themselves to values
—Conceptualizing their own values and organizing a value system
—Becoming characterized by a value or value complex.[4]

The values referred to above should, at the awareness and response levels, include a wide range of individual and social values. Students eventually should accept, prefer, and commit themselves to certain of these values, while rejecting others. Finally, they should conceptualize their own values, organize a value system, and through their actions, become characterized by a particular value or value complex.

*Value issues
as content*

A powerful means of attaining these affective objectives is to have students confront real problems that involve conflicting values. Such problems may be referred to as value issues. Focusing upon value issues can enable students to clarify their own values and to recognize the value positions of others. Peer relationships, family matters, work, politics, religion, money, recreation, morality, culture, and other problem areas are fertile sources of value issues. The most potent of value issues will require students to examine their own behavior relative to:

1. The dignity of man
2. Freedom
3. Equality
4. Justice
5. Empathy
6. Loyalty
7. Other values

[4] Krathwohl, David, et al., *Taxonomy of Educational Objectives: Affective Domain* (New York: David McKay Co., Inc., 1964).

C. **Cognitive Objectives**

Cognitive objectives involve the solving of some intellectual task. The choosing, prizing and acting phases of the valuing process require that each student develop cognitive skills that will enable him to work with others in the solving of social problems. The cognitive skills which are exercised in problem solving are varied and complex. These skills may be summarized as follows.[5] Students should be able to:

Cognitive skills summarized

—Recall and recognize data which are pertinent to social problems

—Comprehend pertinent data (This skill includes the ability to translate, interpret and extrapolate from data.)

—Analyze pertinent data in order to identify elements, relationships and organizational principles

—Evaluate pertinent data in terms of internal and external criteria

—Synthesize pertinent data in order to create an original communication or propose a plan of action

—Apply pertinent data in the solving of social problems

The "data" referred to in the above objectives might be drawn from everything man knows, believes, and can do—both formally structured knowledge from the disciplines and informally structured knowledge from ordinary experience.[6] Such data include:

Categories of knowledge content

—Knowledge of specific terminology and facts

—Knowledge of ways and means of dealing with social problems

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[5] Bloom, Benjamin, et. al., *Taxonomy of Educational Objectives: Cognitive Domain* (New York: David McKay Co., Inc., 1956) and Sanders, Norris M., *Classroom Questions: What Kinds?* (New York: Harper and Row 1967). Note that skills have been listed in an order more closely resembling the problem solving process. Bloom's *Taxonomy* lists skills according to difficulty; the order being recall, and recognition, comprehension, application, analysis, synthesis, and evaluation.

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[6] Johnson, Mauritz, *The Translation of Curriculum into Instruction* (Ithaca, N.Y.: Cornell University, 1968), p. 2.

—Knowledge of concepts, generalizations, theories and structures.[7]

Knowledge of specific terminology and facts should serve as a basis for dealing with social problems and understanding concepts, generalizations, theories and structures.

Knowledge of ways and means of dealing with social problems should include the ability to:

Problem
solving
method

1. Identify and clarify the problem
2. Formulate hypotheses
3. Collect data
4. Classify data
5. Analyze data and evaluate the desirability and feasibility of taking action on the problem
6. Propose a course of action and examine the desirability and feasibility of taking action on the problem.[8]

Knowledge of ways and means of dealing with social problems should also include the ability to:

Social
skills

1. Interpret the feelings and ideas of others
2. Respond to the feelings and ideas of others in a manner appropriate to the occasion
3. Express one's own feelings and ideas to others
4. Cooperate with others, though not to the extent of compromising basic values.

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[7] Bloom, *op. cit.*, p. 62 ff.

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[8] Simon, Frank. *A Reconstructive Approach to Problem-Solving in the Social Studies* (Calgary: The University of Calgary, 1970). The Simon model differs from most methods of problem solving in that it leads to action on the problem.

INTER-RELATEDNESS OF VALUES, KNOWLEDGE AND SKILLS

The inter-relatedness of the values, knowledge, and skills components of the Alberta social studies curriculum might be diagramatically represented as follows:

Values—
clarification
of values,
attitudes and
feelings

Knowledge—
of Factual Data
of Concepts
of Generalization
of Process

Skills—
—Gathering
—Organizing data,
 using data &
 processes
—Expressive
—Social

Components of
Decision-Making
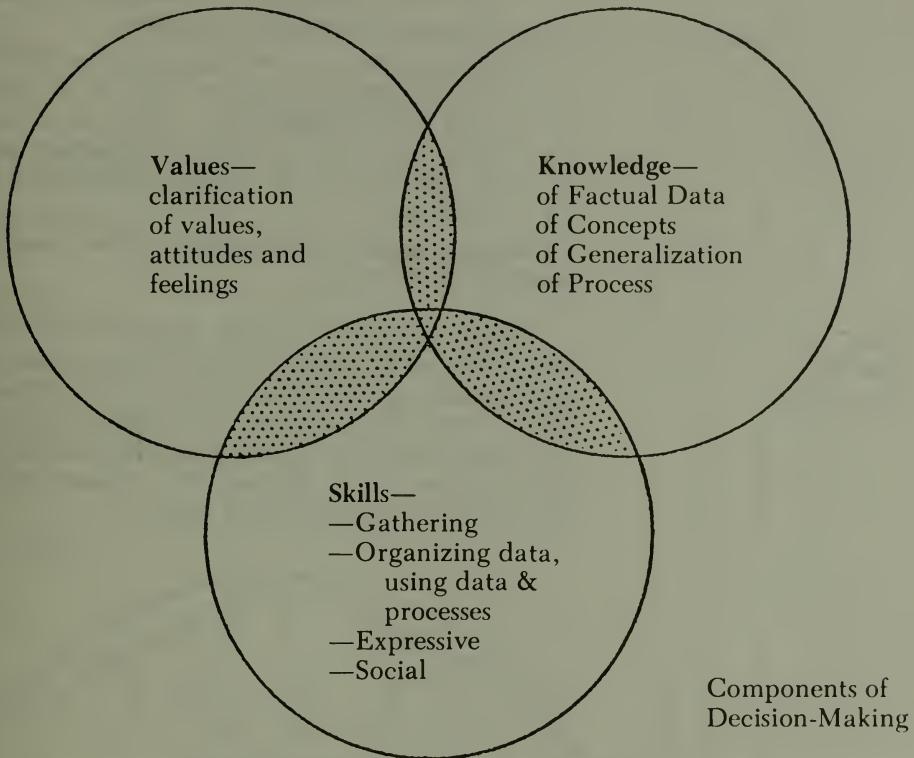
In the decision-making process, **knowledge** in its various forms is essential but dependent for its existence, validity and application upon the skills used to obtain, organize and apply it, and the influence of pertinent values. Similarly, **skills** of a varied nature must be developed to facilitate sound decision-making, for these are the vehicle by which knowledge is obtained and values explored. Finally, **values, attitudes, and feelings** are explored, clarified, and assessed by the utilization of skills and in the light of an ever-expanding knowledge base.

Knowledge of concepts, generalizations, theories and structures should result from students synthesizing the specific data gathered or produced while confronting value issues. Some of the major concepts needed in studying human behavior are outlined below. These concepts should be used by students in developing generalizations and theories which seek to explain people's values.

Inter-disciplinary base of social studies concepts

INTERACTION is a key concept in the understanding of social problems. History, geography and the social sciences describe in part man's interaction with his social and physical environment.
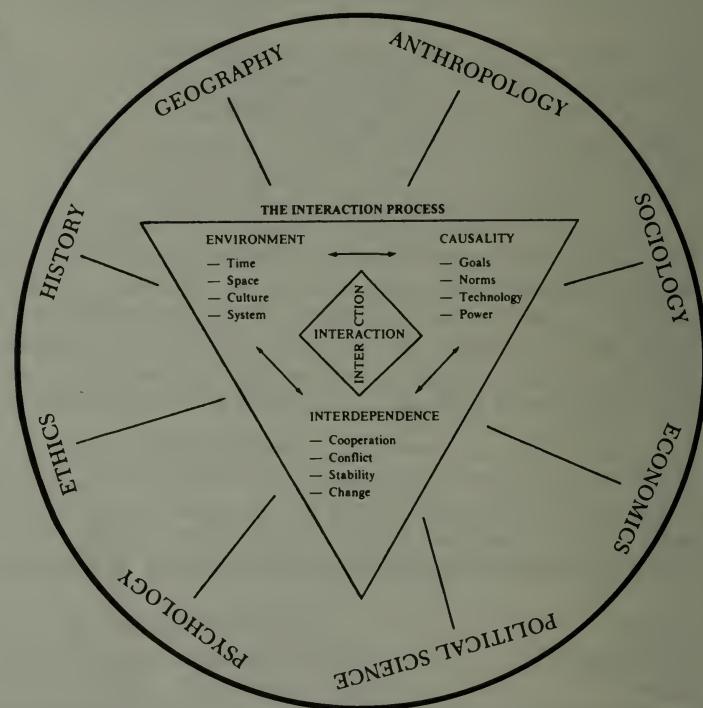
1. **ENVIRONMENT** is, itself, an important concept which can be defined in terms of **Time, Space, Culture** and **Systems.**

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2. Man's interaction with his environment pro-
   duces **CAUSAL RELATIONSHIPS.** In order
   to understand causality, one needs to recog-
   nize that behavior is affected by **Goals,**
   Norms, Technology, and **Power.**

3. Since all man's interactions involve cause and
   effect relationships, he lives in a state of
   INTERDEPENDENCE. Interdependence
   may take the form of **Cooperation** and/or
   Conflict and may produce **Stability** and/or
   Change.

A diagramatic representation of the interaction
process appears below.

The
spiralling
of concepts

These and other concepts should be studied in
more than one grade level on the understanding that
lower grades will attend to the concept in a specific,
concrete and simple manner. Succeeding grades will
treat each concept in greater generality, abstractness,
and complexity.[9] A diagramatic representation of
spiralling concepts is shown on page 17.

THE INTERACTION PROCESS

ENVIRONMENT — Time, Space, Culture, System

CAUSALITY — Goals, Norms, Technology, Power

INTERACTION

INTERDEPENDENCE — Cooperation, Conflict, Stability, Change

GEOGRAPHY · ANTHROPOLOGY · SOCIOLOGY · ECONOMICS · POLITICAL SCIENCE · PSYCHOLOGY · ETHICS · HISTORY

9 Taba, Hilda, *Teachers' Handbook for Elementary Social*
Studies (Don Mills, Ontario: Addison-Wesley Company, 1967),
Chapter 4.

THE SPIRAL OF CONCEPT DEVELOPMENT

The Interaction Process

| Grade Themes | Environment ← → Causality ← → Interpendence | Complex General Abstract |

Grade Themes:

12. World Problems And Issues
11. World Problems And Issues
10. Canadian Problems
9. Man, Technology And Culture In Western Societies
8. Man, Technology And Culture In Afro-Asian Societies
7. Man, Technology And Culture In Pre-Industrial Societies
6. Historical Roots of Man
5. People In Canada
4. People In Alberta
3. Comparing People's Communities
2. Neighbors
1. Families
K. All About Me

Environment: Space, Time, Culture, System
Causality: Goals, Norms, Technology, Power
Interpendence: Cooperation, Conflict, Stability, Change

Complex General Abstract
Simple Specific Concrete

Values: Dignity of Man, Freedom, Equality, Loyalty, Justice, Empathy, etc.

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Planning For The Attainment of Multiple Objectives

The preceding statements of objectives offer only a general indication of the processes and content of learning opportunities in the social studies. More **detailed planning of learning opportunities is the responsibility of each teacher and class.** All learning opportunities must be consistent with the objectives outlined above, whether the learning opportunity arises from the structured scope and sequence or in connection with a problem of current interest.

A. Structured Scope and Sequence

Two-thirds time on structured scope and sequence

Approximately two-thirds of social studies class time will be spent inquiring into themes, value issues and concepts which fall within a scope and sequence specified by the Department of Education. This scope and sequence is very general, thus permitting teachers and students to select learning opportunities according to their own needs and interests. Topics and themes for each grade are indicated below:

Kindergarten—All about Me
Grade I—Families
—Analysis of family living through case studies of, for example, a contemporary family, a family of long ago, an Afro-Asian family, and other families

Grade II—Neighbors
—Analysis of interactions which occur among, for example, the local neighbours, rural and urban neighbours, neighbours in other cultures

Grade III—Comparing People's Communities
—Comparison and contrast of community life in, for example, a modern-day Indian or Eskimo community and a North-American megalopolis; a village in Africa or Asia, and a community in the Pacific, or tropical South America; a Mennonite or Hutterite community and other communities which lend themselves to comparison and contrast

Grade IV—People in Alberta
—Historical, economic, sociological and/or geographic analysis of Alberta's people, including comparison and contrast with other world

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areas that have similar historical, geographic and/or economic bases, for example, Australia, Argentina, U.S.S.R., Middle East oil producers, Western U.S.A. and other areas

Grade V—People in Canada
—Sample studies to analyze historical and/or contemporary life in Canadian regions, for example, people in an Atlantic fishing port, people in a French-Canadian mining town or farm community, people in a St. Lawrence Seaway port, people in an Ontario manufacturing center, people in a Prairie farm or oil town, people in a British Columbia fruit or forestry industry, people in a Western distribution center, people in a coastal city, people in a Northern mining town, and other sample studies

Grade VI—Historical Roots of Man
—Anthropological analysis and social history of early civilizations in, for example, The Mediterranean area (e.g., Egypt, Greece, Rome), Far East (e.g., India, China), The Americas (e.g., Incas, Mayans, Aztecs, North American Indian), and Africa (e.g., Numidians, Nubians, or other tribes)

Grade VII—Man, Technology and Culture in Pre-Industrial Societies
—Conceptual understanding of Man, Technnology and Culture through case studies of primitive, pre-industiral societies to be selected by teachers and students

Grade VIII—Man, Technology and Culture in Afro-Asian Societies ·
—Depth studies of societies selected from Africa, Asia (excluding the U.S.R.R.), the Middle East and Pacific Islands

Grade IX—Man, Technology and Culture in Western Societies
—Depth studies of societies selected from the Americas (excluding Canada), Europe, all of U.S.S.R., Australia and New Zealand

Grade X—Canadian Problems
—Historical, economic, sociological, political problems facing Canada

Grade XI—World Problems and Issues
—Tradition versus Change
—Population and Production

Grade XII—World Problems and Issues
—Political and Economic Systems
—Conflict and Cooperation

B. **Problems of Current Interest**

One-third time unstructured

Approximately one-third of class time in social studies may be devoted to problems that are of current interest to students and teachers. The Department of Education does not intend to structure the use of this one-third time. Problems which meet the criteria which follow may arise as extensions of the main themes and value issues for each grade. They may relate to problems of individual students, the school, the community, or the world, and may concern the past, the present and/or the future. A given problem may be studied by the whole class, by a group, or by individual students. It is important that a record be kept of the problems studied by each student throughout his or her school career.

Joint planning

Students and teachers should jointly plan the use of the one-third time. **Generally speaking, the teacher should view the one-third time as an opportunity for students to develop independence and responsibility.**

The amount of teacher leadership required in the planning and use of the one-third time will vary according to the ability, experience, and maturity of the class. The teacher's influence should be exerted in a manner and to a degree consistent with this objective.

Distribution of time

The one-third time may be distributed over the school year (or semester) in any way that students and teachers see fit. Three of the many possible alternatives are:

1. One time block, accounting for one-third of total class time, taken at any point during the year
2. Two- or three-week "units" of time, accounting for one-third of total class time, taken at various points during the year
3. Propitious occasions, accounting for one-third of total class time, taken at opportune times during the year.

C. Criteria for Selecting Learning Opportunities

In selecting the processes and content for day-to-day experiences in the social studies curriculum—whether for the two-thirds time broadly structured by the Department of Education or for the one-third time devoted to problems of current interest—teachers and students should attend to the following criteria:

Futurity

1. Does the experience have futurity? That is, can it contribute to the attainment of affective and cognitive objectives?
   a. Does it involve a pertinent value issue?
   b. Can it contribute to the development of social and/or inquiry skills?
   c. Does it provide for growth in students' understanding of concepts?
   d. Does the experience fit as part of a sequence which will lead to a reasoned pride in Canada tempered with a world view and an understanding of significant social problems?

Relevance

2. Is the experience relevant to the needs and interests of students?

Materials

3. Are data and materials available and/or can students gain experience through gathering primary data?

Overlap

4. Does the experience avoid the disadvantageous overlap and repetition of experiences in earlier or later grades?

GRADE VII SOCIAL STUDIES

Man, Culture And Technology In Pre-Industrial Societies

The following course outline is based on the themes *MAN*, *CULTURE*, and *TECHNOLOGY*. Value issues relating to each theme are outlined below. It is intended that this study should provide the basic skills and conceptual understandings needed for the in-depth studies of *MAN*, *CULTURE*, and *TECHNOLOGY* at the Grade VIII AND IX levels.

Each value issue should be studied in the context of a primitive or pre-industrial society by the teacher and students. The society selected for study should serve to illustrate the concepts *MAN*, *CULTURE*, and *TECHNOLOGY* in concrete, simple and specific forms. Up to one-third of the time may be devoted to the study of problems of current interest to students and teachers.

> Theme A: What is Man?
> Value Issues: 1. What is human about human beings?
> 2. Should each man strive to be a unique individual?
> 3. Should man strengthen his group identities?
>
> Theme B: What is Culture?
> Value Issues: 1. How can cultures best solve their basic problems?
> 2. Why are cultures unique, yet similar?
> 3. To what extent should cultures incorporate change?
>
> Theme C: What is Technology?
> Value Issues: 1. To what extent has technological change benefited pre-industrial societies?
> 2. Should a pre-industrial society do what is technically possible whether or not it is socially desirable?

GRADE VIII SOCIAL STUDIES

Man, Technology, And Culture In Afro-Asian Societies

The following course outline is based on the themes *MAN*, *TECHNOLOGY*, and *CULTURE*. Value issues relating to each theme are outlined below. Each value issue should be studied in the context of an Afro-Asian society to be selected by the teacher and students. For purposes of this course, "Afro-Asian" societies include Asia (excluding the U.S.S.R.), Africa, the Middle East and the Pacific Islands.

Up to one-third of the time may be devoted to the study of problems of current interest to students and teacher.

> Theme A: Afro-Asian Man
> Value Issue: Should individual worth be maximized in an Afro-Asian society?

Theme B: Afro-Asian Technology
Value Issue: Should Afro-Asian societies change the methods by which resources are utilized?

Theme C: Afro-Asian Culture
Value Issue: Should social and cultural change in an Afro-Asian society be viewed as necessary and desirable?

Theme D: Afro-Asian Society and International Relations
Value Issue: Should an Afro-Asian society pursue a policy of non-alignment?

GRADE IX SOCIAL STUDIES

Man, Technology, And Culture In Western Societies
Preamble

The following themes are to be studied within the context of Western Societies. One-third time may be devoted to the study of problems that are of current interest to students and teachers.

Theme A: Man in the Western World
Major Problem:

How should the society under study resolve conflicts between individual freedom and group control?

Value Issues: 1. Should the state assume responsibility for the welfare of the individual?

2. What institutions best ensure human rights will be protected and to what extent should the individual sacrifice his rights for the benefit of society?

3. By what means and to what extent can the individual and the group influence decision-making?

Theme B: Technology in the Western World
Major Problem:

What institutions best ensure that human rights will be protected and to what extent should the individual sacrifice his rights for the benefit of society?

Value Issues: 1. To what extent should man use human and natural resources to improve his standard of living?

2. How should man meet the challenge of change created by technology?

3. To what extent should the wealth and technology of one nation be shared with other nations?

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Theme C: Culture in the Western World

Major Problem:

How should individuals and social groups of differing political, economic, social and cultural convictions adjust so as to minimize conflicts within the Western World?

Value Issues:
1. Should men work toward a common culture or should differences be encourged?
2. Should one's efforts be directed toward material want or toward the development and preservation of aesthetic, moral and spiritual needs?
3. How can the quality of urban life be improved?

HEALTH

INTRODUCTION

Purpose

The school health program has evolved because of the concern that a community has for the health of its children. The purpose of the program is many sided. It includes the total activity which is planned, organized and developed to prepare boys and girls for healthful living. A sound health program consists of instructions, counselling and guidance which through a variety of activities seeks to protect and improve the children's health.

The subject matter of health is important but not in the sense of memorizing the types of muscles in the body, the various kinds of communicable diseases and the values of cleanliness. These facts assume importance only as children incorporate them to their habits and attitudes while adjusting to their environment. The study of health should help boys and girls come to know health principles which they can apply in daily living. There are many skills involved in this approach to the study of health; reading for information, writing to make records, identifying problems, planning together, and evaluation. It implies that teachers should do less telling and more guiding in developing the desirable habits and attitudes in pupils relative to personal, community and national health.

Objectives

Schools seek to provide an educational environment in which the pupil may attain complete development as an individual. The health program contributes toward achieving all of the objectives of education. However, this program makes its greatest contribution to the achievement of physical and mental fitness. Every pupil, to the limit of his nature, needs and capacity, should have the opportunity to develop and maintain good physical and mental health.

Basic Understandings:

An understanding of the nature of the human being—physical, mental, emotional, and social—is basic to successful application of the principles of healthful living.

Good health is a state of complete mental, physical, social and spiritual well-being as well the absence of disease and infirmity.

Physical and mental health are closely related.

The state of an individual's health, physical and emotional, should be considered in the choice of a vocation for it is a factor in success.

Keeping oneself in good physical and mental health helps one meet more successfully the problems encountered in everyday living.

The principles of good mental hygiene act as guides to the development of desirable personality traits.

Growth and development—physical, mental, emotional, spiritual and social—are continuing processes throughout the life of the individual.

Both are influenced by diet, exercise, rest, relaxation, recreation, and freedom from sickness and accident.

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Practices of wholesome and unwholesome living have certain physical and psychological effects upon the human being.

Evaluation in Health Education

The following are some of the purposes which may be served by planning for continuous evaluation of your success in achieving the objectives of the health education program:

1. To develop the pupil's ability to evaluate his achievement in terms of growth, skills, social relationships and to learn about abilities in order that he may become increasingly self-directive and self-confident.
2. To ascertain and appraise pupil health status, interests, needs, attitudes, opinions and practices.
3. To appraise individual pupil and group achievement and understanding in the classroom.
4. To stimulate pupil interest and motivate learning.
5. To help each student to understand his strength and weaknesses.
6. To appraise and judge what has been accomplished on the basis of proposed objectives and outcomes.
7. To locate areas of individual pupil and group instructionala needs, e.g., physiology, personal hygiene, community health and nutrition.

Numerous devices are available to accomplish the above purposes. They include teacher-prepared tests and examinations, standardized tests, observations of the pupil in practical situations in and around the school, hypothetical practical situations for testing understandings of health and the ability to apply it wisely. Group discussions are sometimes an effective technique in evaluating group progress.

It is important that health knowledge must be provided in desirable quantity and quality and that the facts and understandings be evaluated. Without this, desirable health behavior is not to be expected.

Recommended Texts

Grade VII   *Health For Young Canadians:* Simonson et al.

Grade VIII *Health and Fitness For Canadian Youth:* Simonson, Hastie & Doherty.

Grade IX   *Fitness For Living:* Frache and Brown (Macmillan).

CONTENT

GRADE VII

Unit I Looking Ahead:
    A. Growth
    B. Variations in Growth and Development
    C. Fitness
    D. To Smoke or Not to Smoke

Unit II Safety at Home:
    A. Cause of Accidents
    B. Safety to and from School

Unit III You from the Outside:
    A. Posture—A Telling Sign
    B. Skin and Complexion
    C. Teeth
    D. Grooming

Unit IV Looking Outside—The Eyes and the Ears:
    A. The Organ of Sight
    B. The Organ of Hearing

Unit V Your Framework and Power Plant:
    A. Your Body's Framework
    B. An Efficient Power Plant

GRADE VIII

Unit I Understanding Growth:
    A. How Your Body Grows
    B. Variations in Growth
    C. Factors Affecting Growth
    D. Acceptance of Growth and Its Related Problems

Unit II Safety at Work and Play:
    A. Safety at School
    B. You Play Safely
    C. Safety in Sports

Unit III Nourishing Your Growing Body:
    A. Maintaining Body Needs

B. Measurement of Food
C. Food Substances
D. Food Preparation and Preservation
E. Deficiency Diseases
F. The Current Nutritional Picture

Unit IV   *Body Machines for Utilizing Foods:*
A. The Food Refinery
B. Digestive Disorders
C. Excretion
D. Detecting Disorders

Unit V   *Progress Against Diseases:*
A. Development of Health Knowledge
B. Diseases of the Past
C. Diseases of the Present and Future
D. A Challenge for You (New Drugs)

GRADE IX

Unit I   *Respiratory System:*
A. Man's Air Conditioner
B. Mechanics of Breathing
C. Diseases and Disorders

Unit II   *The Circulatory System:*
A. History
B. Structure
C. Function
D. Some Factors Affecting the Circulatory System
E. Diseases and Disorders
F. First Aid
G. Medical Advances

Unit III   *The Nervous System:*
A. Man's Marvellous Control System
B. Diseases and Disorders

Unit IV   *The Endocrine System—A Regulator:*
A. Structure and Location
B. Functions of the Glands
C. Diseases and Disorders

Unit V *Safety on Wheels:*
  A. Safety on the Highway
  B. Safety in Swimming

Unit VI *Group Action for Health:*
  A. The Role of the Community
  B. Health Services in Your Community
  C. Other Health Services
  D. The Role of the Individual in Community Health

PHYSICAL EDUCATION

Physical education is concerned with the development of the whole individual. As well as contributing to the mental, social and emotional well-being of youth, a claim all subjects make, physical education has its unique contribution in developing physical fitness and motor skills in recreational activities which can carry over into adult life.

Every physical education program must motivate the student to engage in activities which develop physical fitness as well as those that are recreational in nature. The program must be challenging and also allow for personal achievement at the various levels of participation. Individual differences, needs and desires must be taken into account in order to provide enjoyment and self-satisfaction.

Objectives of Physical Education

1. The development of a strong body and soundly functioning body systems.
2. The development of recreational and utilitarian skills.
3. The development of a wholesome interest in physical activities for wise and constructive use of leisure time.
4. The development of desirable standards of behavior and the ability to get along well with other people.

PROGRAM ORGANIZATION

There are many activities from which a physical education program may be chosen. In order to insure that a well-balanced program is carried out, these principles have been established.

First, the program from Grade VII through Grade X should be sequential with a continuous progression in skills from basic to complex. The student should also experience a variety of activities. Therefore the program should be carefully planned with this end in view. It is particularly important that the program in Senior High School be planned with a knowledge of what the student's program has been in the Junior High School.

Second, six kinds of activities are considered to be of major importance in the physical education program. These are designated as core activities. Each of the six categories of activity either is in itself a core activity or includes core activities. The core activities are:

1. Outdoor—Flag Football, Ice Hockey, Softball, Soccer, Field Hockey
2. Indoor—Basketball, Volleyball
3. Dual and Individual—Badminton, Cross-Country Running, Handball, Skating, Track and Field,Wrestling
4. Rhythmics and Dance
5. Tumbling and Gymnastics
6. Aquatics

Applying the principles stated above, therefore, a sound physical education program for any one year should be organized as follows:

1. Two or more outdoor team games, at least one of which is a core activity
2. Two or more indoor team games, at least one of which is a core activity
3. Two or more individual or dual sports, one of which is a core activity
4. Tumbling and Gymnastics
5. Rhythmics and Dance
6. Aquatics

COURSE CONTENT

Note: In teaching the activities listed below the following areas should be covered: (1) History, (2) Terminology, (3) Rules and Officiating, (4) Selection and Care of Equipment, (5) Skills and Techniques, (6) Team play or Games Strategy (where applicable), (7) Lead Up Games and Game Variations, (8) Conditioning. Some of these areas will be incidentally taught while others will be taught directly.

Activities not included in the list may be taught with the approval of the superintendent of schools.

I. **OUTDOOR TEAM GAMES**
   A. *Flag Football* (Core)
      1. Skills and Techniques
         a. Stance of linemen and backfield
         b. Pulling of linemen
         c. Blocking:—shoulder, brush, kickoff protection, pass protection
         d. Passing and receiving:—throwing, catching, cutting, pass patterns, pass defence
         e. Central exchanges:—the "T", single wing, punting, field goals, leading
         f. Kicking and receiving:—punting, field goals, receiving a punt or a kickoff.
      2. Team Play
         a. Offensive plays:—quick opening, off tackle, end run, reverse and double reverse, counter, pass plays
         b. Defensive plays:—individual responsibilities, sideline defense, rushing, rotating, stunting, looping, floating.

   B. *Ice Hockey* (Core)
      1. Skills and Techniques
         a. Skating:—starts, stops, backwards, forwards, turns, reverses
         b. Shooting:—forehand, backhand, slap
         c. Passing
         d. Checking:—poke, shoulder, hip, fore, back, blocking shots
         e. Goal tending.

2. Team Play

Power play, penalty killing, offensive and defensive positional play, plays initiated inside the blue line.

C. *Softball* (Core)
 1. Skills and Techniques
    a. Throwing:—underhand, overhand, sidearm
    b. Fielding:—ground balls, fly balls
    c. Batting:—stance, saving, punting
    d. Base running
    e. Positional play:—catcher, pitcher, basemen, shortstop, outfielders.
 2. Team Play
    a. At bat
    b. In the field.

D. *Soccer* (Core)
 Skills and Techniques
    a. Passing, receiving, dribbling, heading
    b. Trapping:—foot, shin, body
    c. Kicking (stationary and moving)—volleying, charging, tackling, throwing, goalkeeping.

E. *Bordenball*
 Skills and Techniques:—passing, shooting.

F. *Broomball*
 Skills and Techniques:—basic skating skills, goal tending, use of broom.

G. *Curling*
 Skills and Techniques
    Delivery (in-turn, out-turn, weight), sweeping, skipping.

H. *English Rugby*
 Skills and Techniques
    a. Running:—swerve, sidestep, change of pace, hand-off, selling
    b. Ball skills:—passing, punting, catching, drop kicking, place kicking, dribbling, falling the ball
    c. Fielding and tackling
    d. Scrum play:—set scrum, loose scrum, line out, wheeling, positional play
    e. Back play:—alignment, scrum half, break through, offensive kicking (short kick, grubber kick, cross kick), reverse play, scissors, pass, blind side pass.

I. *Field Ball*
 Passing, shooting.

J. *Field Hockey* (Core)
Skills and Techniques
  a. Passing, receiving, dribbling, fielding, tackling
  b. Individual defence, bully, corner, roll-in
  c. Goal tending.

K. *Speedball*
Skills and Techniques:—dribbling, passing, place and drop kicking, punting, pickups.

II. INDOOR TEAM GAMES
A. *Basketball* (Core)
  1. Skills and Techniques
    a. Basic stance:—offence and defence
    b. Footwork:—running forward and backward, pivoting, one-two count
    c. Passing, pass-receiving:—two-hand chest, one-hand push, bounce, overhead, baseball, underhand
    d. Shooting:—two-hand set, layup, hook, jump, running one hand, foul shooting
    e. Dribbling:—high, low.
  2. Team Play
    a. Man to man and zone defences
    b. Screening, overloading, fast break.

B. *Volleyball* (Core)
  1. Skills and Techniques
    a. Volleying:—position, back court volleying, setting, below the chest
    b. Serving:—underhand, overhand, assisted, arm and hand action
    c. Spiking:—approach, placing, back court spiking, arm and hand action
    d. Blocking:—the jump, recovering the ball off the net.
  2. Team Play
    a. Offence:—1, 2, 3 (volley, set, spike), rotation of the setter, the fake spike
    b. Defence:—double team blocking, team movement for spikes and tips, team movement when there is no spike.

C. *Floor Hockey*
With the exception of skating, same skills as ice hockey.

D. *European Handball*
Skills and Techniques:—dribbling, shooting, passing, defensive fundamentals.

III. DUAL AND INDIVIDUAL SPORTS

A. *Badminton* (Core)
   Skills and Techniques
       a. Serves
       b. Forehand and backhand
       c. Clear, drive, drop, smash, net, round the head
       d. Doubles systems of play.

B. *Cross Country Running* (Core)
   Running style, conditioning, pacing, strategy.

C. *Handball* (Core)
   Skills and Techniques:—serve, volley, half-volley, lob, killshots, back-wall and ceiling shots, doubles systems of play.

D. *Skating* (Core)
   Skills and Techniques:—skating forward, backward; stops, turns, starts; figure 3, figure 8, spiral; elementary individual and pair routines.

E. *Track and Field* (Core)
   Skills and Techniques
       a. Sprints:—starts, running stride, the finish
       b. Relays:—baton exchange, types of relay
       c. Middle distance:—running stride, hand, arm, leg and foot action, the finish
       d. Broad jump:—approach, take-off, the jump, landing
       e. High jump:—approach, take-off, kick (western, eastern, belly roll) landing
       f. Hurdles:—movement of leading and trailing leg, steps, between hurdles, the start, approaching first hurdle, the finish
       g. Shot-put:—hand-hold, delivery, release, movement across the circle, recovery
       h. Discus:—hand-hold, initial stance, preliminary swings, delivery, movements across the circle, release, recovery
       i. Pole vault:—hand-hold, pole carry, approach, swing up, pull up, body form, landing
       j. Hop, step and jump:—approach, take-off, the hop-step-jump rhythm, landing.

F. *Wrestling* (Core)
   Skills and Techniques
       a. Stance:—on the feet, on the mat, closed stance
       b. Breakdowns:—near arm and far ankle, head lever and far ankle, far arm and far ankle
       c. Riding the opponent

d. Reverses and escapes:—defensive positions on the mat, wing lock or side roll, escape from underneath, hip lock escape, hip lock escape with cross face

e. Pinning holds:—near wrist and half-nelson, hammerlock and half-nelson, crotch and half-nelson, outside crotch and near wristlock.

G. *Archery*

Skills and Techniques:—stringing the bow, basic stance and position, nocking, holding, drawing and aiming, loosing, novelty shots.

H. *Bowling*

Skills and Techniques:—grip, footwork, release, speed and rhythm, point of aim

Types of delivery:—straight, hook, back up

Types of shots:—strikes, spares, splits.

I. *Golf*

Skills and Techniques:—grip, stance, swing, wood shots, irons, putting, selection of clubs.

J. *Hiking and Campcraft*

1. Skills and Techniques
   a. Campcraft:—fire building and safety, outdoor cooking, menu planning, cooking kits and food packing
   b. Knotcraft:—rope whipping, reef knot, bowline, clove-hitch, use of knots, use of lashing ropes
   c. Direction-finding:—sun, watch, stars, compass.

2. Campsites and Equipment
   a. Types of camp:—resident family, dual and individual campsites and shelters
   b. Camp facilities and resources, public lands and parks.

3. Camping Activities
   a. Campfire activities:—stories, skits, songs, games
   b. Other: canoeing, swimming, casting, fishing, archery, hiking, ice fishing
   c. Nature study: birds, leaves, rocks, insects, trees, animals, fish.

K. *Horseshoes*

Skills and Techniques:—grip, turns, stance, step and swing, release.

L. *Personal Defence*

Judo, ju-jitsu, boxing

Note: These sports should be offered only by teachers skilled in the activity and where facilities and equipment ensure the safety of the students participating.

M. *Skiing*

Skills and Techniques

    a. On the level:—gliding,steps, skating, step turn, kick turn

    b. Climbing:—side step, herring bone, traverse

    c. Downhill:—straight turn, traverse stopping, side slipping, other turns.

N. *Table Tennis*

Skills and Techniques

    a. Basic stance, grip,service, spins

    b. Defensive strokes:—the half-volley, the chop

    c. Offensive strokes:—the drive, the drop shot

    d. Doubles systems of play.

O. *Tennis*

Skills and Techniques

    Grip, stance, footwork, forehand and backhand drives, service, lob, volley, half-volley, smash, doubles systems of play.

IV. RHYTHMICS AND DANCE [Core]

A. *Dance*

1. Folk dance:—basic steps, fundamental and derived
2. Square dance:—patter and singing calls, single and double visiting couple, accumulative figures
3. Social and ballroom dance:—basic steps in waltz, foxtrot, tango, rumba, samba, current dance steps, dance patterns
4. Creative or modern dance
    a. Moving in and through space:—locomotor and axial movement, space design, group design, floor pattern, qualities of movement
    b. Dance techniques:—creative activities, improvisations, abstracts, response to stimuli
    c. Composition ˙principles:—units, variety, repetition, contrast, balance, harmony
5. Tap dance:—basic steps, combinations, routines
6. Ballet.

V. TUMBLING AND GYMNASTICS [Core]

A. *Tumbling*

Forward roll, backward roll, shoulder roll, dive roll, three-man shuffle, double roll, jump through, nip up, chest roll, fish flop, head spring, neck spring, hand spring, bent and straight arm, round-off cartwheel.

Trampoline

    a. Rebounding form—basic form, tuck, pike, jackknife

    b. Drops—check drop, knee, hand and knee, seat, front and back

    c. Advanced stunts—somersaults, twists, dives and back over.

B. *Free Exercise*

C. *Balances*
Squat, hand and head, forearm, snapdown.

D. *Double Balances*
Foot to hand, thigh stand, knee stand, walk-up shoulder mount, low arm to arm, assisted somersault.

E. *Pyramid Building*

F. *Horizontal Bar* (boys)
Chins, skin-the-cat, monkey hangs, belly grind, front hip circle, short underswing and dismount, low underswing with half turns at end, single knee, dismount, single knee mount from swing, single knee circle backward, double knee circle forward, single knee circle forward.

G. *Vaulting Box*
1. Sideways:—squat vault mount, jump off forward (with pike), straddle vault, squat vault, side or flat vault, front vault, stoop vault, dive over box with forward roll, neckspring, headspring, handspring
2. Lengthways (boys): squat vault mount, kneeling vault, straddle vault mount, side vault, scissors vault with half turn, forward roll, neckspring, headspring, handspring.

H. *Parallel Bars* (boys)
1. Mounts:—single leg cut on, double leg cut on, lazy man kip, inverted hang to straddle
2. Dismounts:—single leg cut off, double leg cut off, front dismount to side, rear dismount to side
3. Stunts:—jump to cross rest position, jump to cross upper hang, swing from shoulders, stationary and swinging dips, hand walk forward, crab walk on bars, straddle progression, swing through and sit, forward roll to straddle, forward roll, shoulder balance, roll forward from shoulder, roll backward from straddle, kick upstart, front up rise, back up rise, upper arm kip, handstand.

I. *Uneven Parallels* (girls)
1. Mount:—front support mount, back pull over, hang to straddle, pike or swing legs over, knee circle mount
2. Dismount:—handstand ¼ turn, underswing high bar, straddle sole-circle
3. Movements on the Bars:—
   a. Hanging and swinging—underswing high bar ¼ turn, skin-the-cat cartwheel, cast off high bar
   b. Circling the bar—knee circle, hip circle, seat circle
   c. From bar to bar—stem rise, single leg kick-over, eagle regrasp.

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J. *Rings* (boys)

Chins or bent-arm hang, inverted hand, swing, basket, single leg cut, in-locate, dislocate.

K. *Balance Beam* (girls)
1. Mounts:—straddle over to sit, squat mount, fence vault
2. Dismounts:—pike jump, English hand balance, cartwheel
3. Locomotor movements:—runs, hops, jumps
4. Balances:—front scale, knee scale, lunge
5. Tumbling stunts:—front roll, back roll.

VI. **AQUATICS** [Core]
A. *Swimming*
1. Adjustment to the water, drownproof techniques
2. Strokes:—front crawl, back crawl, elementary back stroke, side stroke, breast stroke, hybrid strokes
3. Floating, treading water and sculling
4. Diving
5. Life saving (for advanced swimmers)
6. Water games.

B. *Synchronized Swimming*
1. Sculling:—flat scull, head first, feet first, circle propellor
2. Back entries:—back tuck somersault, back dolphin, kip, flying back dolpin
3. Forward entries:—front tuck somersault, front pike somersault, bent knee front, tuck somersault, porpoise
4. Ballet leg figures
5. Strokes
6. Floating:—back layout, tub, log roll, marlin, waterwheel, shark
7. Individual and group routines and patterns to music.

C. *Water Safety*

GRADE NINE GUIDANCE

Introduction

The theme of this course is decision-making. This process involves the ability to effectively assess a situation in order to choose, from the alternatives, the most appropriate behavior.

Student understanding and use of decision-making skills should result in an increased ability to:

1. plan
2. assess one's own abilities, interests, values and personality
3. relate this assessment to vocational requirements
4. make good educational, vocational and personal decisions
5. apply the decision-making model to any choice situation
6. take responsibility for his own educational, social and personal adjustment.

RECOMMENDED TEXTS AND REFERENCES:

Decision-Making: Zingle, Safran, Hohol
Curriculum Guide For Grade IX Guidance, Department of Education.

Course Content

Unit I   DECISION-MAKING

    a. Levels of Awareness of the Need for Choice

        i. No mention of choice

        ii. Mention of a need to choose and possible alternatives

        iii. Mention of a choice or steps to aid in making the choice

        iv. Mention of a reason for choice

        v. Mention of the relationship of immediate to intermediate or ultimate choice.

    b. Levels of Choices

        i. Immediate

        ii. Intermediate

        iii. Long Range

    c. Decision-Making Pattern

        i. Select goal

        ii. Collect all pertinent information

        iii. Establish and examine alternatives and possible consequences

        iv. Select an alternative after weighing the risks against the values involved

        v. After implementation of one's choice periodic reexamination should occur.

        Decision-Making—Chapters 1 and 2

Unit II FACTORS INVOLVED IN VOCATIONAL DECISIONS

a. Academic Achievement
   i. Evaluation Procedures
      —Purposes
      —Types
      —Predictions
   ii. Study Methods
   iii. Study Schedules
   iv. Relationship of achievement to decision-making.
   Decision-Making—Chapters 3, 4, 5, and 6

b. Aptitudes and Abilities
   i. Individual Differences
   ii. Theories of Aptitudes
   iii. General Ability
   iv. Special Aptitudes
   v. Special Abilities
   vi. Relationship of aptitudes and abilities to academic achievement and vocations.
   Decision-Making—Chapters 7 and 8

c. Interests
   i. Nature and role of interests
   ii. Development of interests
   iii. Measurement of interests
      —Expressed
      —Manifested
      —Inventoried
   iv. Relationship of interests to aptitudes, abilities, academic achievement and vocations.
   Decision-Making—Chapters 9 and 10

d. Values
   i. Characteristics of Values
   ii. Values and Risk-Taking
   iii. Values and the Self-Concept
   iv. Relationship of values to academic achievement, aptitudes, abilities, interests and vocations.
   Decision-Making—Chapters 11 and 12

e. Studying an Occupation
   i. Variety of occupations
   ii. Relationship between education and job preparation
   iii. Relationshop between the knowledge of oneself and one's knowledge of occupations

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ART

The OBJECTIVES of the program are:
1. the development of personal satisfaction for the student through his deepening realization that art is a creative and a communicative activity;
2. the development of the student's capacity to make critical and meaningful decisions in aesthetic matters;
3. the development by the student of insight into his environment;
4. the development of an awareness of the potential and limitations of various art processes, through direct experience with materials and techniques;
5. the development of a realization of the common features which all creative activities share.

The PROGRAM consists of a series of self-contained units of uniform length, each unit containing a sequence of experiences structured around one theme or area. The term "module" is applied to such a unit, and each module should last for approximately ten weeks. Four or five modules would constitute a full year's program for one class. Accordingly, if a student were to take a three-year program, he should be able to realize all of the major objectives.

Teachers are invited to make up their own combinations of modules, depending on their particular interests and on the facilities which are available to them, from a total of thirty modules. These are classified into fifteen Level 1 modules, which provide basic experiences in a variety of areas; and fifteen Level 2 modules, which have been left to the discretion of the teacher to develop according to his needs and inclinations. Level 2 modules should be based on the material covered in the appropriate Level 1 modules.

The fifteen Level 1 Modules are classified as follows:
A. *Basic Experiences* modules, comprising *Drawing, Painting, Design, Communication Arts, Sculpture and 3-D Projects,* and *Group Design Projects.*

   These modules provide the students with the basic techniques and skills of creative expression.
B. *Expanded Experiences* modules, comprising *Textile Arts, Theatre Arts, Graphics, Plastics, and Synthetic Media, Ceramics and Pottery,* and *Film as an Art Form.*

   These experiences have in common the fact that extensive manipulation of media is called for if they are to be fully realized.
C. *Indirect Experiences* modules, comprising *Environmental Studies, Talking about Art,* and *Crafts and Craftsmen.*

   By introducing these modules, which are of a non-studio nature (i.e. they are made up of visual/verbal presentations and discussions and do not require that students *make* anything) recognition is given to the need to provide the student with a vocabulary and a background which will enable him to discuss art more intelligently.

Two examples of junior high art programs which might be developed by the teacher are outlined below. Program A exemplifies the type of approach which a teacher might take whose interests are general and who wishes to have students cover as many areas as possible in the course of their junior high school career.

PROGRAM A

Module	1	2	3	4
Grade 7	Design	Communication Arts	Ceramics	Talking About Art
Grade 8	Drawing	Textile Arts	Painting	Sculpture
Grade 9	Graphics	Film As An Art Form	Environmental Studies	Projects In Group Design

PROGRAM B

Program B represents the type of program which might be conducted by a teacher whose interests are in a few specialized areas, or who has not facilities for experiences in ceramics, photorgraphy, or similar subjects. The figure (2) designates a Level 2 module.

Module	1	2	3	4
Grade 7	Design	Sculpture	Drawing	Graphics
Grade 8	Drawing (2)	Design (2)	Environmental Studies	Communication Arts
Grade 9	Painting	Sculpture (2)	Theatre Arts	Painting (2)

IN SUMMARY

1. A year's program consists of four or five modules.
2. Modules are approximately 8 to 10 weeks duration.
3. A student can experience 12 to 15 modules in the 3 years of junior high school.
4. There are 30 modules to choose from consisting of fifteen Level I modules and fifteen Level 2 modules.
5. The modules are to be developed by the teacher(s).
6. Level 2 modules must be built on the concepts covered in Level 1.
7. All students in an Art class need not necessarily take the same module(s) at the same time.

BASIC LIST OF REFERENCES FOR THE CLASSROOM

Art Area	Title	Author	Publisher
DRAWING	Creative Drawing— Point and Line	Roettger, E. and D. Klante	Scarborough: Van Nostrand Reinhold
	Learning to Draw	Kaupelis, R.	New York: Watson-Guptil
PAINTING	Brush and Palette	Sorgman, Mayo	Scarborough: Van Nostrand Reinhold

|			
DESIGN	*Elements of Design*	Anderson, D.	Toronto: Holt, Rinehart & Winston, 1961
	Looking and Seeing (Series)	Rowland, Kurt	Toronto: Ginn & Co., 1968
COMMUNICATION ARTS	*Lettering, A Guide for Teachers* (Revised)	Cataldo, J. W.	Edmonton: Moyer Vico, 1965
SCULPTURE & 3-D PROJECTS	*Sculpture and Ideas for School and Camp Programs*	Andrews, Michael	Englewood Cliffs, N.J.: Prentice-Hall, 1965
GRAPHIC ARTS	*Creative Printmaking*	Andrews, Michael	Toronto: Prentice-Hall, 1964
PLASTICS AND OTHER SYNTHETIC MEDIA	*Plastics as an Art Form*	Newman, T.	New York: Chilton
CERAMICS AND POTTERY	*Ceramics, a Potter's Handbook*	Nelson, G.	Toronto: Holt, Rinehart & Winston, 1966
ENVIRONMENTAL STUDIES	*Art: An Approach* (Workbook)	Neice, R. C.	Dubuque, Iowa: Wm. C. Brown, 1963
TALKING ABOUT ART	*Art as Image and Idea*	Feldman, E. B.	Englewood Cliffs, N.J.: Prentice-Hall, 1967.

DRAMA

PRELIMINARY STATEMENT

Dramatic activity involves the whole person — the development of the individual, through experience and expression of his creative self — in movement, mime, dance, improvisation or the scripted play.

All drama — and we use the term to include not only formal theatre but the study of improvisation, pantomime, film, television, media shows, dance, opera, radio plays, etc. — *can be creative* — if presented in such a way that the full resources of each individual are challenged.

The Secondary School Drama Curriculum from Grades VII to XII is predicated on the belief that drama must begin with development of the creative faculties of the student. From this base the course is built progressively in order to obtain for the student at the advanced level the broadest possible theatrical experience, for example, play production, critical viewing of theatre, film, television, film production, etc. Therefore, teachers should note that this program of studies differs from the previous one in that the program is not developed through five or six grades but through *three levels*.
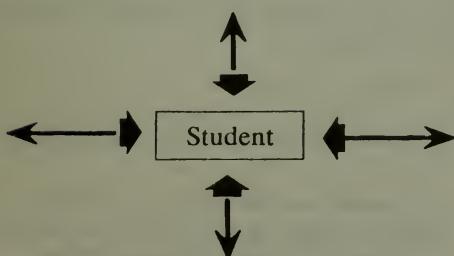
Level 1
Initial — development of creative faculties
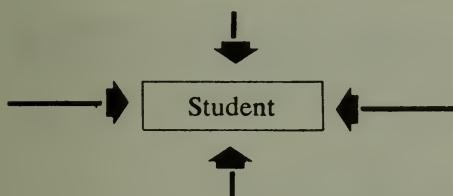
THE ARROWS INDICATE A FLOW of experiences provided by the teacher to develop personal resources and lay foundations for further creative exploration.
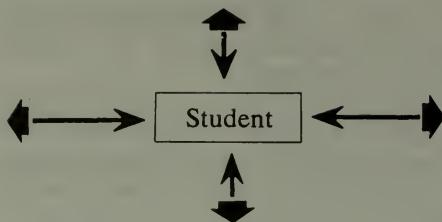
Level 2
Intermediate — enrichment of creativity and a growing awareness of art form which may include the limited theatre experience.

The two-way process of student-teacher shared responsibility for further development and growing awareness of theatre form.

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Level 3

Advanced — continuing development of creative faculties plus theatre experience.

The student should now be able to participate in advanced theatre form and utilize his inner resources to share a meaningful experience with an audience.

In the Junior High School and in Drama 10 it is expected that the Drama program will draw from the initial and intermediate levels.

INITIAL LEVEL

The uniqueness of each person is his individuality and in this — whether it be academic, technical, creative, or a combination of all three — he should not be compared with any other person. Drama is concerned with developing this uniqueness and helping each person to discover and to reach his own potential. A well-structured program which provides for creative experience on the part of the student, can develop within the student an awareness of the world, empathy with others, concentration, imagination, physical confidence, emotional control, expressive oral communication, self-discipline and tolerance. Drama has a unique contribution to make in the emotional and intuitive development of the student as the academic disciplines have in his intellectual development.

The objectives of the Initial Level are, therefore, *not* theatre oriented but concentrate on the development of the student's own resources.

Statement of Objectives

1. **To develop concentration**
2. **To develop sensory distinction**
3. **To obtain freedom and control in physical movement**
4. **To develop imagination**
5. **To establish foundations for further exploration in creative experience**
6. **To develop an awareness of the world today through an understanding of today's media and the responsibility of media to society.**

It is intended that some or all of the units be used, each being developed to a greater or lesser extent, to provide a variety of experience. However, it is possible for a teacher to emphasize *one* of the units and develop it over a period of a semester or year, as these units are based on the premise that teachers teach best what they know and what they feel most confident in.

Units

The activities for each of the following units are based upon the six parts of the Statement of Objectives.

Creative Speech — The dynamic and confident use of language, to communicate original and interpretive thoughts and ideas, the emphasis being on individuality rather than on the acquisition of technical skills.

Dramatic literature as a creative experience — The study of plays, radio scripts, television scripts, themes of films, etc., as a medium of communication of thoughts, feelings, ideas, *not as an academic analysis*; i.e., the play or film produced — the story told, the characters portrayed.

Media as a communicative art — A study through a variety of experiences of contemporary media (television, films, radio, newspapers, etc.) to develop an awareness and appreciation of the contribution of these changing forms in society.

Improvisational theatre — Improvisation means a situation, story, play without a script; such a situation, story, play can be told with or without words. The emphasis in this initial level is on movement improvisation rather than the extensive use of improvised dialogue, which is a more complex and advanced form of improvisation.

Linking drama with other creative arts — The intention of this unit is to offer the drama teacher a variety of approaches through utilization of aspects of other creative arts, thus emphasizing the strong interaction amongst all the arts.

Recommended Teacher Reference:

Way, Brian. *Development Through Drama*. Don Mills: Longman, 1967.

INTERMEDIATE LEVEL

Preliminary Statement

The Intermediate Level is an extension and further development of the objectives stated for the Initial Level. These objectives are:

1. To develop concentration
2. To develop sensory distinction
3. To obtain freedom and control in physical movement
4. To develop imagination
5. To establish foundations for further exploration in creative experience
6. To develop an awareness of the world today through an understanding of today's media and the responsibility of media to society.

At this level is added:

7. To channel individual creative resources into group activities and develop an awareness of dramatic form.

It is expected that the student at the Intermediate Level has had the benefit of a year or two at the Initial Level. Therefore, this program, or any part of it, will not be incorporated in Grades VII or VIII. It is also expected that the material covered in the Curriculum Guide to the Initial Level will be referred to regularly and used frequently at the Intermediate Level. It bears repeating that the total program presupposes that the dramatic experience is built on the very firm base of the student's development of his own resources. Therefore, at the

teacher's discretion, a unit or units from the Initial Level may be adapted for use with "experienced" students, if the teacher believes that they are not properly prepared to benefit from the more sophisticated outlook of the Intermediate Level. It is also possible to use material from the Intermediate Level while continuing to use the individual-centred method of the Initial Level. Teachers should not commit students to the group-centred approach until the students are ready for it.

The material in the Intermediate Level is presented through the means of three major units, each of which involves a progressive series of group projects designed to stimulate interest in various aspects of theatre art. The emphasis throughout is on an improvisational approach with each unit involving, to a greater or lesser degree, elements of the five units introduced into the Initial Level Guide.

Again, it is hoped that the teacher will make use of all three units during the course, although this is not mandatory. There *is* a shift in emphasis from individual work to group work intended to develop the student's ability to communicate, first with the group, and then with an audience. It is desirable, therefore, that, during the course of this level, much more of the student's work be presented for the class; that through class discussion the strengths and weaknesses of the work done is analysed; that some exercises will be developed to a more finished state for viewing by other classes or small assemblies; that, in short, opportunities for a closed (i.e. classmates, other classes, invited friends and parents) audience situation exist.

Outline of Units

Three areas of emphasis, which are interrelated, each incorporating the other two, are suggested. Since the Intermediate Level is a bridge between the Initial Level and the Advanced Level, the projects included within each area indicate a progression in complexity and sophistication, culminating in limited theatre experience.

Improvisational Theatre: the devising and developing of improvised movement and speech plays (with form, structure, discipline implied). This does not exclude the use of source material from literature both as stimulus and as framework; likewise, media provides both stimulus and enrichment to the improvised play.

For example:
- planned, rehearsed improvisation of situations, scenes and short plays
- planned, rehearsed dance dramas
- use of light, sets, projected and other scenery etc. to stimulate and/or enhance improvisations and dance drama
- poetry (various kinds) to create a movement, sound and light collage
- Descriptive prose (various kinds) linked with movement, sound, light, etc., to create a dramatic statement
- dramatisation of short stories
- play building from a theme, involving production as a culminating project of a short play for presentation in a closed situation.

Literature: the written and spoken work would be the core source material of this unit; *improvisation* would be incorporated as part of the process of developing an awareness of the art of theatre; *media* would act as enrichment.

For example:

— words, phrases, quotations as basis for collage of words, movement
— poetry (various kinds) in conjunction with sound, light and movement for enrichment
— improvised dramatisation on scenes from short stories
— original script writing, stimulated by or adapted from source material
— scenes, one act plays used as basis for improvisation
— use of improvisation as an approach to producing scenes and short plays
— improvisation of crowd scenes from plays, novels, etc.
— collage of poems, scenes, dramatisations, original writing to produce a short presentation as culminating project.

Media: The exploration of media (film, projections, light) to create a piece of art implies the use of improvised movement and speech; the concept of statements, and of documentary type plays provides opportunities for using source material.

For example:

— exploration of light, sound, for effect to enhance improvised movement and speech plays
— use of poetry, prose, scenes as a basis for experimentation with light, sound
— exploration into film: (1) as enhancement of improvisations
        (2) as a creative art (N.B. *not* a study of Hollywood film techniques)
— exploration with video cameras using original scripted or improvised material
— use of puppets with original scripted or improvised material
— use of film, projectors, to enhance documentary drama
— short culminating project involving improvised dialogue, dance drama, original or source material (e.g. poems, scripts) as a basis for a collage of recorded sound, light, film, projected scenery as production enrichment.

MUSIC

Objectives of the Secondary School Music Program

To help the student:

1. increase his awareness of and sensitivity to music of his own and other cultures, past and present.
2. increase his ability to understand, evaluate and become articulate about music.
3. understand the ways and means of communicating through music.
4. increase his ability to communicate through music.
5. evaluate his own musical abilities.
6. be a part of and understand the creative experience.
7. become aware of the basic importance of music in his life and in the lives of men.
8. increase his self-confidence.
9. develop a philosophy of life by providing an acquaintance with musical works which convey universal truths.

The Secondary School Music Program

Grade VII, VII and IX music courses are defined as Group A options in the *Junior-Senior High School Handbook*. The time allotment for these options is a minimum of 75 hours.

The Senior High School music program may be organized under the following headings: Music 10, 20, 30 (choral music); Music 11, 21, 31 (instrumental music); Music 12 (general music).

Where staff, facilities and enrollment permit, the students should be given the opportunity to choose from among Choral Music, General Music, or Instrumental Music as a means of satisfying the music option at each grade level in the Junior High School. Where course offerings must be limited, the interests and strengths of the students and staff should determine which alternatives will be offered. All music courses, therefore, should include the basic core of conceptual learnings in music as part of the course content as indicated below. The teacher should endeavor to help each student progress at least one level of understanding in each musical concept each year.

Guidelines for credit values and sequences of courses at the High School level are found in the *Junior-Senior High School Handbook*.

At the Junior High School level instruction should be individualized so that the students would not be prohibited from taking any of these music courses because they had not elected music the previous year. This could be achieved by having all the first year band or orchestra students in the same class even though some may be in Grade VII and some in Grade VIII, or by giving separate evaluations to the Grade VIII students who had taken music in Grade VII and those students who had not taken music in Grade VII.

Planning a Program

An effective program will take into account the backgrounds, interests, strengths, and limitations of the students in that program. Each instructor must, therefore, determine the present level of achievement of his students; the goal

for which the students should strive; the means of accomplishing the objectives and of evaluating the success of the program.

The Scope and Sequence Chart of the Conceptual Learnings included here is not intended to be prescriptive. It is a "bird's-eye view" of the elements included in a secondary music program of studies and suggested sequence presentation. For the most satisfactory progress towards the long range objectives, a balanced program should be planned for each student. The balance that should be the concern of the teacher is the balance of conceptual learnings and not one of activities. For example, a high degree of rhythmic development (see chart) with a complete neglect of harmonic or historical understanding, would signify an unbalanced program. Yet if an understanding of all of the concepts can be developed through choral rehearsals, performance and discussions about choral music, additional activities will not be necessary. It is possible for the same understanding to be achieved in a strictly instrumental program. Usually some variety of activities is necessary to allow for individual differences within any class.

SCOPE AND SEQUENCE CHART
(Summary only—details are included in Curriculum Guide to Secondary Music)

Elements of Music

Rhythm	— six levels ranging from aural awareness of and response to phrasing, pulse, rhythm and accent to development of understandings of such concepts as syncopation.
Melody	— six levels ranging from aural awareness of pitch to an understanding of descants, rounds and canons.
Harmony	— six levels ranging from aural awareness of chord changes to an introduction to two- and three-part harmonization.
Form	— six levels ranging from aural awareness of phrase length and a feeling for cadence to such forms as sonata, fugue, etc.
Tempo	— six levels ranging from aural awareness and response to changes in tempo to visual awareness of the relationship of tempo to form.
Dynamics	— six levels ranging from aural awareness of loud and soft to ways of achieving and controlling dynamics.
Tone Color	— six levels ranging from aural awareness of difference in timbre to a knowledge of instrumental effects.

Historical Perspectives

Music Yesterday	— six levels ranging from singing as amplified speech in primitive times to 'avant garde' music.
Music Today	— six levels ranging from music in today's cultures and sub-cultures to concerns of professional musicians, etc.

Related Areas

Science of Sound	— six levels ranging from aural awareness of how sounds are produced to consonance and dissonance in acoustics.

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Compositional Techniques	— six levels ranging from awareness of relationship of inspiration to technique, to opportunity to write music from a given progression.
Musical Score	— six levels ranging from awareness of single line scores to full orchestral and vocal scores.
Aesthetic Consideration	— six levels ranging from awareness of three-way relationship among composer-performer and listener to an analysis of the concept of changing music styles.

In order to place this information on a chart, the statements have been summarized. These statements are explained fully in the Curriculum Guide for Secondary Music.

The Basic Core

To achieve the objectives of the music program three areas must be the concern of the teacher: the cognitive, the psychomotor and the affective. These three areas should not be separated but be considered simultaneously.

In the same way the cognitive, pyschomotor and affective remain of equal concern, the various sections of the Scope and Sequence Chart of Conceptual Learnings should be considered and planned for concurrently. None of the areas should be neglected for any appreciable period of time.

The chart is divided into three sections: Elements of Music (rhythm, melody, harmony, form, tempo, dynamics, tone color); Historical Perspectives; and Related Areas (science of sound, compositional techniques, texture, and aesthetic considerations). For each element or area several levels of development are outlined which range from simple awareness to aural and visual understanding. These levels of development do not necessarily represent grades, but are to be used to develop a balanced spiral program throughout the secondary school. It should be noted again, the chart is not meant to be prescriptive, and above all, it should not be restrictive. Classes or students able to achieve at a higher level should be encouraged to do so, but only if all areas are progressing and expressive skills and positive attitudes developing. Performance groups will probably progress more rapidly in rhythm, melody, dynamics, etc., and General Music students in historical perspectives or compositional considerations.

At all times the teacher must be aware that music is more than the sum of its parts, and that one element can not satisfactorily be separated from the others. In spite of this, the distinctive attributes which make each musical element or area different from the others have been recognized and isolated in the chart.

The Secondary Choral Program

In addition to covering the basic core, the choral program should help the student:
1. develop tone control and avoid the misuse of his singing voice.
2. become acquainted with a varied repertoire of choral literature.
3. improve his breathing, diction and ability to sing parts.
4. improve his ability to read music.

Grades VII to X — General Music Program

Students choosing general music expect a varied and exciting musical experience that is different from the Choral program, and yet not a repeat of the elementary music program. The emphasis may be on creating music, performing music on instruments and singing, or any subject or skill area of interest to the students and teacher. This in no way relieves the class of the responsibility of including the basic core of musical understandings.

The Secondary Instrumental Program

In addition to covering the basic core, the instrumental program should help the student:

1. develop tone control and articulation skills necessary for performing in various styles.
2. become acquainted with a varied repertoire of instrumental music literature, both solo and ensemble.
3. develop personal character traits of leadership, poise, and dependability.
4. improve his ability to read music.

Recommended Textbooks

The following music texts are recommended for use:

Choral Music (Junior High)

Leonhard, Charles, et al. *Discovering Music Together*, Books 7 and 8. Follett, 1967.

Wilson, Harry, et al. *Growing With Music*, Books 7 and 8. Prentice-Hall, 1966.

Cowan, Don. *Search for a New Sound*, Basic Goals in Music, Book 8. McGraw-Hill, 1967.

General Music (Junior High and Music 12)

Landis, Beth, and Lara Hoggard. *Exploring Music*, the Senior Book. Holt, Rinehart and Winston, 1968.

LANGUAGES OTHER THAN ENGLISH

INTRODUCTORY STATEMENT

A language other than English may be implemented in the junior high school grades, either as a Group A option or as a Group B option. As a Group B option, it should respect the principles underlying this classification as outlined in the *Junior-Senior High School Handbook*. The implementation of a Group B option will vary from school to school dependent upon the personnel and material resources available.

However, when offered to interested students as a Group A option, its effectiveness in achieving significant proficiency in language learning by these students will depend upon, among other factors, the provision of ample time, frequently scheduled instructional periods and planned articulation. A sequential program, beginning at either the elementary school or at the junior high school and continuing on to senior high school, is a prerequisite to any real proficiency in the language studied.

For students in Alberta schools, progress in language development is suggested for each of three LEVELS of language acquisition. A LEVEL of language proficiency is defined as a set of behaviors which includes knowledge of language content and performance in terms of linguistic and attitudinal change. Although a LEVEL may be equated in a general way with a "year" or "years" of learning, or even with "grades", the term, as used in the PROGRAM OF STUDIES, indicates a student's level of linguistic development rather than his year of study or grade placement.

LEVEL ONE is defined as an *initial* learning experience in a second language. Students may complete LEVEL ONE or more at the end of a three-year junior high program or its equivalent. Students who begin their study of a second language in senior high school are expected to complete LEVEL ONE at the end of one year of language study. Students who have studied a language for one year only in senior high school, however, cannot be expected to have attained the same degree of fluency as students who have been exposed to the language for longer periods of time in the junior high school.

LEVEL TWO is defined as an *intermediate* learning experience in a second language. Students will normally complete LEVEL TWO at the end of two sequential years of senior high school study following the successful completion of LEVEL ONE.

LEVEL THREE then becomes an *advanced* learning experience in which students are encouraged to increase their language proficiency and cultural understanding. Students will pursue the study of a second language at this LEVEL after successfully completing LEVEL TWO.

Curriculum guides have been prepared for French, German and Ukrainian, in order to help school systems which choose to offer a second language in the junior high grades to plan a sequential program of learning activities. The curriculum outlines in these documents suggest language content and expected linguistic and attitudinal behaviors for each LEVEL of language learning.

Students who have successfully completed a second language program in the junior high school should be placed in a senior high school program which takes into account both achievement and the amount of time during which the

student was exposed to the target language. In many schools it is suggested that students be placed in French 20, German 20 or Ukrainian 20 if the minimum requirements of LEVEL ONE have been satisfied in the junior high grades. For other schools, where students have been exposed to longer sequences of French language learning, it is strongly recommended that students register in French 11 when it is offered.

GOALS AND OBJECTIVES

In the study of modern languages the long range goals are cultural understanding and effective communication. Achievement of these goals exclusively in a school setting is unrealistic. The development of cultural understanding and linguistic proficiency is a complex process involving a variety of language experiences and exposure to the culture of the people whose language is being studied. It is desirable, however, that in a school program some progress be made towards realization of the more specific goals outlined below.

A. CULTURAL OBJECTIVES
The student should be able:
1. To understand the values and behaviour patterns of the people whose language is being studied.
2. To appreciate the contributions made to civilization by these people.

B. LINGUISTIC OBJECTIVES
1. To understand the structure and functioning of the language being studied.
2. To apply this knowledge to the acquisition of skills needed:
   (a) To understand the language when spoken at a normal speed on a subject within the range of a student's linguistic experience and areas of interest.
   (b) To speak the language well enough to communicate in it within the limitations mentioned above.
   (c) To read in the target language with direct understanding for information and enjoyment.
   (d) To write with reasonable ease anything he can say in the language.

FRENCH AS A SECOND LANGUAGE

Suggested Expections For French At The End of Level One

The curriculum outline included on pages 8 - 27 of the curriculum guide* identifies the language content to which students will be exposed during LEVEL

French as a Second Language, Tentative Curruculum Guide, Levels 1, 2 and 3 (Secondary) 1974.

ONE, and it suggests the linguistic and attitudinal behaviours expected of students at the end of this level of language learning.

LEVEL ONE is considered to be an *initial* experience in learning the French language and it may occur at any grade(s) of the student's career in the secondary school. The attainment of LEVEL ONE proficiency may occur in a variety of ways, such as the successful completion of:

a. a three-year program in the junior high school,
b. a two-year program in the junior high school, equivalent in time exposure to three years of study,
c. a one-year program in the senior high school, during which students learn the concepts and develop the skills and attitudes suggested for LEVEL ONE.

The successful completion of LEVEL ONE by a student should result in his subsequent placement in a LEVEL TWO program, i.e. French 20. **In schools where the students have been exposed to more than the core content required of LEVEL ONE, it is suggested that students register in French 11 when it is offered.**

GERMAN AS A SECOND LANGUAGE

Suggested Expectations For German At The End of Level One

The curricular outline included on pages 7 - 16 of the curriculum guide* identifies the language content to which students will be exposed during LEVEL ONE, and it suggests the linguistic and attitudinal behaviours expected of students at the end of this level of language learning.

LEVEL ONE is considered to be an *initial* experience in learning the German language and it may occur at any grade(s) of the student's career in the secondary school. The attainment of LEVEL ONE proficiency may occur in a variety of ways, such as the successful completion of:

a. a three-year program in the junior high school,
b. a two-year program in the junior high school, equivalent in time exposure to three years of study,
c. a one-year program in the senior high school, during which students learn the concepts and develop the skills and attitudes suggested for LEVEL ONE.

The successful completion of LEVEL ONE by a student should result in his subsequent placement in a LEVEL TWO program, i.e. German 20.

German as a Second Language, Tentative Curriculum Guide, Levels 1, 2 and 3 (Secondary) 1974.

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Suggested Expectations For Ukrainian At The End of Level One

The curricular outline included on pages 4 - 15 of the curriculum guide*
identifies the language content to which students will be exposed during LEVEL
ONE, and it suggests the linguistic and attitudinal behaviours expected of
students at the end of this level of language learning.

LEVEL ONE is considered to be an *intial* experience in learning the
Ukrainian language and it may occur at any grade(s) of the student's career in the
secondary school. The attainment of LEVEL ONE proficiency may occur in a
variety of ways, such as the successful completion of:

a. a three-year program in the junior high school,
b. a two-year program in the junior high school, equivalent in time
   exposure to three years of study,
c. a one-year program in the senior high school, during which students
   learn the concepts and develop the skills and attitudes suggested for
   LEVEL ONE.

The successful completion of LEVEL ONE by a student should result in his
subsequent placement in a LEVEL TWO program, i.e. Ukrainian 20.

Ukrainian as a Second Language, Tentative Curriculum Guide, Levels 1, 2 and 3 (Secondary)
1974.

RECOMMENDED INSTRUCTIONAL MATERIALS

The language content, along with the linguistic and attitudinal behaviors outlined in LEVEL ONE in each of the curriculum guides for French, German and Ukrainian contain the basic core suggested for an initial program in these languages. Teachers are advised to examine the instructional materials and select structures, concepts and expressions which correspond to the Program of Studies and curriculum guides. As lessons vary in substance, it is important to avoid a materials-centered, page by page, lesson by lesson coverage.

The following instructional materials are recommended for the junior high school portion of a six-year program beginning in Grade 7.

FRENCH AS A SECOND LANGUAGE
> * A-LM Level One (Revised Edition)
>> or
> * Ecouter et Parler (Revised Edition, 1970)
>> or
> Le Français International, deuxième version (Books 1, 2 and 3)
>> or
> * Voix et Images de France

GERMAN AS A SECOND LANGUAGE
> A-LM Level One (Second Edition)
>> or
> Verstehen und Sprechen (1970)

UKRAINIAN AS A SECOND LANGUAGE
> Ukrainian by the Audio-Visual Method

ADDITIONAL RESOURCES

In order to encourage students to meet the expectations suggested for LEVEL ONE, teachers are invited to select and adapt from the instructional materials listed above, and to provide for a wide variety of supplementary resource materials. A selection of resource materials for French, German and Ukrainian has been identified in the following publications.

> *Resource Materials — A Listing Prepared for Teachers of French as a Second Language* (Secondary) 1974.

> *Resource Materials — A Listing Prepared for Teachers of German as a Second Language* (Secondary) 1974.

> *Resource Materials — A Listing Prepared for Teachers of Ukrainian as a Second Language* (Secondary) 1975.

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* Please note that A-LM French, Ecouter et Parler, and Voix et Images de France will be phased out in three years.

LATIN

Objectives

The specific objective of a program in any second language is to enable the learner to acquire a proficiency in a language other than his tongue. For the study of Latin, this takes the form of gaining proficiency in:

(a) Reading and understanding Latin.

(b) Learning more about his own language.

(c) Learning about the ancient world and its values.

(d) Comparing and contrasting his own values with those of the ancient world.

(e) Appreciating the immense contribution of Latin to the English vocabulary.

A. SUGGESTED COURSE CONTENT IN THE JUNIOR HIGH SCHOOL GRADES

Text

Page and Beckett. *Gateway to Latin, I and II*. At the end of the Junior High School Latin program it is suggested that the students complete all of *Gateway to Latin I* and the first sixteen chapters of *Gateway to Latin II*.

B. SUGGESTED COURSE CONTENT IN THE SENIOR HIGH SCHOOL GRADES

Latin 10

Text

Breslove and Hooper. *Latin for Canadian Schools.*

Suggested Course Content

Lessons 1 - 27 inclusive; the last exercises in each lesson need not be emphasized, but knowledge is essential of: the first three declensions of nouns; the cases of nouns and their functions; the three declensions of adjectives; the four conjugations in the active in all tenses of the indicative, the imperative, the infinitive; questions; connectives, subordinate clause with ubi, antequam, priusquam, simulat que, cum primum, dum, si nis and cum; prepositions; place and time expressions.

Latin 20

Text

Breslove and Hooper. *Latin For Canadian Schools.*

Suggested Course Content

Lessons 28 - 55 inclusive; the last exercises in each chapter need not be emphasized. Derivative studies should be done orally. Relative, interrogative, demonstrative, reflexive and intensive pronouns should be taught for reading recognition and use rather than have the students memorize the paradigms.

Latin 30

Text

Breslove and Hooper. *Latin for Canadian Schools.*

Suggested Course Content

Lessons 56 - 78 inclusive. The English to Latin should be reduced to a minimum; omit recall and grammatical work on adverbs of place, compounds of fero, and subordinate clauses in indirect discourse.

NOTE:

The Breslove and Hooper text is satisfactory for studying the core material in grammar, but in order to allow flexibility in the Latin Program, it is suggested that teachers be encouragec to utilize a large number of resource materials which emphasize the development of reading comprehension. In addition to the text, Latin readings in the following are examples recommended for this purpose, but this list is not exclusive. Of these, only *Selected Latin Readings* by Taylor and Prentice may be obtained through the School Book Branch. The others are available through the publishers only.

Selected Latin Readings — B. C. Taylor and K. E. Prentice. Dent.

Using Latin — J. Gunmere. Longman.

Lingua Latina — H. O. Oerberg. Nature Method Language Institute (110 East 42 Street, New York) (Vol. I and II).

Civis Romanus — J. M. Cobban and R.Colebourne. Methuen.

Sodales Duo — A. O. Nash-Williams. Cambridge University Press.

First Year Latin — C. Jenny. Macmillan.

Romani Apud Se — G. C. Lightfoot. Macmillan.

Elementary Latin Translation Book — Rev. A. E. Hallard. Copp Clark.

Tironibus — G. M. Lyne. Edward Arnold, London, England.

Balbus — G. M. Lyne. Edward Arnold, London, England.

First Reading Book — G. M. Lyne. Edward Arnold, London, England.

Collins' Latin Dictionary — Collins, Toronto.

NOTE:

1. Students who have successfully completed the minimum content suggested for the Junior High School Latin program should register in Latin 20.

2. Teachers who are recommending students for Latin 20 should ensure that the suggested course content for Latin 10 as outlined in the Program of Studies has been completed.

AGRICULTURE

Objectives:

1. By providing a rich background of knowledge and information, to develop a better understanding and appreciation of agriculture and farm life, as well as a desirable attitude towards them, as related to:
   (a) general contribution to our way of life and economy
   (b) basic control factors involved
   (c) general nature of procedures and practices involved
   (d) an awareness of the associated problems and hazards, and the importance of conservation and safety precautions
   (e) the need for improvement and maintenance of high standards
   (f) enjoyment of the rural environment

2. To develop an understanding and appreciation of, as well as desirable attitudes towards, the role of youth in rural life—now and in the future —as related to:
   (a) contributing towards, and maintaining, a satisfactory farm home
   (b) working effectively in organized groups
   (c) exercising constructive leadership, and recognizing and following worthy leadership
   (d) maintaining desirable relationships with parents, teachers, and the community
   (e) intelligently participating in worthy social and civic enterprises

3. To develop proficiency in fundamental agricultural skills and abilities as related to:
   (a) acquiring, understanding and effectively using the vocabulary and mathematics of agriculture
   (b) thinking rationally in the solution of agricultural problems
   (c) learning how to find and interpret the results of agricultural research and thence applying them to practical work in agriculture
   (d) learning how to do by doing

4. To develop strong vocational interests in agriculture, and to give aim and purpose to further occupational preparation, as related to:
   (a) an awareness and appreciation of the numerous opportunities and possibilities in agriculture and related occupations and to determine the advisability of entering the field
   (b) understanding and appreciating the need for further study and training and how to obtain it.

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Course Content:

The course is organized to develop two main types of abilities on the part of the student: (1) broad understandings and overview of the leading areas of agriculture, (2) skills and managerial abilities or learning experiences provided for through the suggested subject matter content of the various units which have been organized as follows:

Unit I   Understanding and appreciating agriculture and some of the problems of rural youth—orientation

Unit II   Understanding the nature and behaviour of plants and animals and how they are used

Unit III   Selecting and organizing a program of practical work

Unit IV   Understanding the nature of climate and soil as factors influencing the growth of plants and animals

Unit V   Understanding how to grow plants indoors

Unit Vi   Understanding generally the kinds of things to grow and how to grow them

Unit VII   Understanding how to select the most satisfactory growing and producing plants and animals:
             A. Selecting Plants
             B. Selecting Animals

Unit VIII   Understanding generally how some plants and animals are being produced

Unit IX   Understanding some of the problems and hazards of agricultural production and what can be done about them

Unit X   Appreciating and considering careers in agriculture and related occupations

HOME ECONOMICS

Objectives

1. To stimulate an interest in the study of homemaking and explore possible careers related to Home Economics.
2. To help pupils explore and evaluate their interest and abilities and develop skills in this field.

Course Content

The Junior High School Home Economics Program has been planned for the three grades—VII, VIII and IX—with three levels in each of the following areas:Clothing and Textiles, Food Science, and Modern Living. In each grade one-third of the year should be spent on each of the areas.

Texts

Grade VII	*Home Economics 1* — Yvonne Brand, J. M. Dent & Sons
Grade VIII	*Home Economics 2* — Yvonne Brand, J. M. Dent & Sons
Grade IX	*Teen Horizons* — Lewis, Banks and Banks, Macmillan Co.

CLOTHING AND TEXTILES

Level One

Concept A — *Significance of Clothing and Textiles to Individuals in Society*

Subconcept — Medium for perception, artistic expression and experience

Topic Emphasis — "What Shall I Wear?"
— Effect of line
— vertical
— horizontal
— diagonal
— curved
— straight

Concept B — *Nature of Clothing and Textiles*

Subconcepts — Textiles
— Garments
— "Learning to Sew"
— Selection, use and care of sewing equipment and sewing machines;
simple project con-construction

Topic Emphasis — "Exploring Textiles"

Concept C — *Acquisition and Use of Clothing and Textiles*

Subconcepts —   Selection
          —   Use and care
          —   Responsibility of consumer
Topic Emphasis — "Shopping Sense"
              — Standards for buying fabrics and garments
              — Source of information
              — Consumer courtesy

Level Two

Concept A —   *Significance of Clothing and Textiles to Individuals in Society*

Subconcepts —   Social and psychological aspects
          —   Medium for perception, artistic expression and experience
          —   Physiological aspects

Topic Emphasis — "The Meaning of Your Clothes"
              — Role identification
              — communication of role
              — appropriate clothing for various roles
              — clothing problems related to employment
              — effect of appearance on job success
              — "first impressions"
              — The elements of design

Concept B —   *Nature of Clothing and Textiles*

Subconcepts —   Textiles   — Garments

Topic Emphasis — "King Cotton Goes Mod" or — "Sew Easy"
              "Cotton, Its Modern Self"   — garment construction

Concept C —   *Acquisition and Use of Clothing and Textiles*

Subconcepts —   Selection
          —   Use and care
          —   Responsibility of consumer

Topic Emphasis — "Shopping Sense"

Level Three

Concept A —   *Significance of Clothing and Textiles to Individuals in Society*

Subconcepts —   Social and psychological aspects
          —   Medium for perception, artistic expression and experience
          —   Physiological aspects

Topic Emphasis — "Seeing Yourself As Others See You"
              — Principles of design

Concept B —	*Nature of Clothing and Textiles*	
Subconcepts —	Textiles	— Garments
Topic Emphasis —	"Wool Wonderland"	— "So, Sew and Sew" or "Sew Till Success"
		— garment construction

Concept C —	*Acquisition and Use of Clothing and Textiles*
Subconcepts —	Selection
—	Use and care
—	Responsibility
Topic Emphasis —	"Wardrobe Wisdom"
	— Wardrobe planning

- factors influencing wardrobe requirements
- characteristics of a well-planned wardrobe
- clothing inventory
- planning basic garments
- use of basic colour in planning
- accessorizing
- clothing decisions
- clothing budget

FOOD SCIENCE

Note: Students, with the guidance of the teacher, should develop generalizations for each section.

Level One

Concept A —	*Significance of Food*
Subconcept —	As related to nutrition
Topic Emphasis —	Canada's Food Guide
	— Nutrient needs of different members of the family as related to health and well being

Concept B —	*Nature of Food*	
Subconcepts —	Chemical and physical properties of food	— Factors effecting change in properties of food
Topic Emphasis —	Acceptance and rejection of food based on its sensory qualities	— Food selection and preparation using a variety of methods

Concept C —	*Provision of Food*
Subconcepts —	Protective measures
—	Management of resources

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Topic Emphasis — Safety and care of foods and equipment
       — Principles of good management
       — Proper table setting and service
       — Social graces

Level Two

Concept A —   *Significance of Food*

Subconcepts —   As related to cultural and socio-economic influences
     —   As related to nutrition

Topic Emphasis — To be aware of adequate nutrient combinations which fulfill individual needs
        — meal planning

Concept B —   *Nature of Food*

Subconcepts —	Chemical and physical properties	— Factors effecting change in properties of food
Topic Emphasis —	To be aware of individual preferences in flavour and odour of food combinations	— To develop skill in identifying and differentiating various methods of food preparation through practice

Concept C —   *Provision of Food*

Subconcepts —   Production of food
     —   Consumer food practices
     —   Protective measures

Topic Emphasis — To be aware of industry's influence on food products and their safety
       — Importance of being a comparative shopper

Level Three

Concept A —   *Significance of Food*

Subconcepts —	As related to cultural and socio-economic influences	— As related to nutrition
Topic Emphasis —	Factors influencing food, food choices and food habits — To be aware of career opportunities — To understand the significance of food as a socializer	— To identify factors affecting varying nutrient needs of individuals — Comparison of deficient and adequate diets

Concept B —   *Nature of Food*

Subconcepts —	Chemical and physical properties of food	— Factors effecting change in properties of food

Topic Emphasis —	Influence of different colour and texture combinations of food	— Identification of some technological developments that bring changes in the nature of food and extend availability
Concept C —	*Provision of Food*	
Subconcepts —	Production	— Consumer practices
Topic Emphasis —	How the season affects supply, demand and cost	— Develop ability to calculate and compare food costs
Subconcepts —	Protective measures	— Management of resources
Topic Emphasis —	Safe handling of food, e.g., meat, vegetables	— Prepare nutritionally adequate meals for low, average and high cost and establish a minimum cost diet for a family

MODERN LIVING

This course is divided into three sections: Human Development and the Family, Management, and Housing.

All areas are taught in Grades VII to XII with the exception of Housing, which is not taught in Grade VII nor Grade VIII.

At the completion of each section generalizations should be developed by the students guided by the teacher.

Human Development
Level One

Concept —	*Universality of Individuals and Families*
Subconcept —	Family in world perspective — function of society — function of family
Topic Emphasis —	Comparison of the function of the family in the past and the present
Concept —	*Uniqueness of Individuals and Families*
Subconcepts —	Variations in the family
—	Individual potentialities
Topic Emphasis —	Uniqueness of individuals accounts for variations within a family in the same culture
	— Recognition of the importance of knowing oneself — thoughts, abilities, feelings, values
	— The personal concept of oneself

Concept —	*Development and Socialization of the Individual*
Subconcept —	Socialization and dating
Topic Emphasis —	The meaning of socialization and the processes involved
	— How the environment influences
	— Favourable and unfavourable conditions affecting the young child, the adolescent, the adult
	— Recognition that dating is a developmental process
	— Comparison of needs and relationships as fulfillment for self
	— How inter-personal skills develop
	— Development of personal standards
	— Importance of adequate problem solving in dating relationships

Management
Level One

Concept —	*Managerial Processes*
Subconcept —	Organization of activities
Topic Emphasis —	Need to arrange heights of working surfaces to meet needs of students
	— Management for efficiency in the Home Economics room

Concept —	*Effective Elements in Management*	
Subconcepts —	Resources and their utilization	— Values, goals, standards
Topic Emphasis —	Availability and or scarcity of resources affect choice	— Meaning of values, goals, standards
	— Effect on meeting needs or causing risks	— Organization for activities in the Home Economics room
		— Value of routine procedures and co-ordinating activities in school and home

Level Two

Concept —	*Managerial Processes*
Subconcept —	Organization of activities
Topic Emphasis —	The meaning of management
	— Responsibility of the whole family for good management
	— Home management
	— Management in action

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Concept —	*Development and Socialization of the Individual*
Subconcept —	Socialization and dating
Topic Emphasis —	The meaning of socialization and the processes involved
	— How the environment influences
	— Favourable and unfavourable conditions affecting the young child, the adolescent, the adult
	— Recognition that dating is a developmental process
	— Comparison of needs and relationships as fulfillment for self
	— How inter-personal skills develop
	— Development of personal standards
	— Importance of adequate problem solving in dating relationships

Management
Level One

Concept —	*Managerial Processes*
Subconcept —	Organization of activities
Topic Emphasis —	Need to arrange heights of working surfaces to meet needs of students
	— Management for efficiency in the Home Economics room

Concept —	*Effective Elements in Management*	
Subconcepts —	Resources and their utilization	— Values, goals, standards
Topic Emphasis —	Availability and or scarcity of resources affect choice	— Meaning of values, goals, standards
	— Effect on meeting needs or causing risks	— Organization for activities in the Home Economics room
		— Value of routine procedures and co-ordinating activities in school and home

Level Two

Concept —	*Managerial Processes*
Subconcept —	Organization of activities
Topic Emphasis —	The meaning of management
	— Responsibility of the whole family for good management
	— Home management
	— Management in action

Concept —	*Effective Elements in Management*	
Subconcepts —	Resources and their utilization	
—	Values, goals and standards	
Topic Emphasis —	Meaning of goal, value resource and their relationship	
	— How to manage resources	
	— Management in action	
	— practical activities using correct techniques	

Level Three

Concept —	*Managerial Processes*	
Subconcept —	Decision making	
Topic Emphasis —	Relationshop between planning and implementation of a plan may require new decisions, substitutions, new learnings	
	— Management in action	
	— in school and home	

Concept —	*Effective Elements in Management*	
Subconcepts —	Resources and their utilization	— Values, goals and standards
Topic Emphasis —	— Human and non-human resources	— Analyze relationship between values, goals and standards
	— Resources are shared	— Differentiate between needs and wants
	— May have alternate uses	— Compare standards of individuals
		— Compare flexible and inflexible standards

Housing

Level Three (Note: Housing is not taught in Grades VII and VIII.)

Concept —	*Influence of Housing on People*
Subconcepts —	Psychological and physical
—	Social
Topic Emphasis —	The setting provided by the home for physical and emotional development
	— Space organization, structural design and location affect housekeeping and activities
	— Storage facilities and their effect on family living
Concept —	*Factors Influencing the Form and Use of Housing*
Subconcept —	Human

Topic Emphasis —	The effect of housing in satisfying basic physiological, psychological and social needs
	— Human factors which influence the form and use of housing and furnishings
	— individual needs, values, attitudes, abilities, skills and resources
Concept —	*Processes in Providing Housing*
Subconcept —	Designing
Topic Emphasis —	Meaning of design: The process of organizing the basic elements of line, form, shape, texture and colour
	— Art principles

INDUSTRIAL EDUCATION

INTRODUCTION

Industrial Education has a unique place to fill in an education program that has as its objective the development of an informed citizenry in a highly industrialized society — a society that must learn to manage an industrial complex unknown before and to work in vocations not yet described. Industrial Education is a subject area the scope of which introduces students, both boys and girls, to all aspects of productive society.

OBJECTIVES

The following are the objectives of the Junior High School Industrial Education courses:

A. Personal Growth

1. To provide opportunities for the individual growth of the student through the development of acceptable personal and social values necessary in a productive society.
2. To provide a technical environment which motivates and stimulates individuals to discover their interests and develop personal and social responsibilities.
3. To assist in the development of positive attitudes towards safety.
4. To assist in the development of positive attitudes towards conservation and ecology.
5. To assist in the development of consumer values.
6. To assist in the development of positive attitudes towards the dignity of work.
7. To assist in the development of good work habits.
8. To foster the development of vocational interests and skills.

B. Career Exploration

To provide students with experiences which will assist them in making realistic career choices.

1. To provide students an opportunity, within a technical environment, to become acquainted with the general occupational characteristics of a variety of career fields.
2. To relate their own interests, abilities, likes, dislikes, and values to several career fields.

C. Occupational Skills

To develop basic competencies, integrating cognitive and psychomotor skills related to families of occupations.

1. To provide safe exploratory experiences in the use of tools, energy, equipment and materials appropriate to various technologies prevalent in a productive society.
2. To develop an understanding of the interrelationships of various technologies.

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3. To provide a technical environment which permits students to synthesize their accumulated knowledge in the solution of practical problems, and to assist students to develop habits that will be conducive to the establishment of a safe environment.

The guide will provide specific objectives for each of the fields of study. The use of behavioral objectives is recommended but such objectives have not been included. Each teacher should prepare a set of behavioral objectives in accordance with their interests and methods of approach to the work.

PROGRAM DESCRIPTION

A. Organization

The multiple activity program is an organizational device by means of which a variety of exploratory experiences can be presented with a minimum of room and equipment. The laboratory is organized into a number of different sections representing the fields of study. Each section or bay is large enough to accommodate 4 to 6 students. These bays are as self-contained as possible with provisions made for the storage of tools, products and stock within them. The class is divided into three or more groups with each group working through the course unit in the assigned bay. After the completion of the unit in from nine to twelve weeks the groups rotate, each proceeding to another bay and to new experiences.

As the units consist of from nine to twelve weeks of work, depending on the number of areas in operation, there will be several weeks unaccounted for. This time, two to four weeks, could be used at the beginning of the year to organize the activities of the groups, plan the first product for an area, teach the beginning lessons of each unit, give demonstrations, and provide the information required to get each group started efficiently in their assigned unit.

Poor management and lack of planning are bound to result in confusion. Therefore, the teacher must have a well devised plan before attempting to operate a multiple activity laboratory.

B. Fields of Study

To provide for a breadth of exploratory experiences, the junior high school industrial education program is divided into four fields of study which are further sub-divided into sixteen modules. Each module represents fifteen to twenty-five hours of study. The minimum number of modules studied in one year is three. During the junior high school years it is recommended that a student study a minimum of three *different* modules each year. In junior high schools where Industrial Education is taught for two years, it is recommended that four *different* modules per year should be studied.

Fields of Study	Modules
Power Technology	Power Mechanics
	Electricity
	Electronics-Computer
Materials Technology	Earths
	Lapidary-Art Metals
	Leather-Textiles
	Metals
	Plastics
	Woods
Visual Communication	Graphics
	Photography-Drafting
Synthesizing	Consumerism
	Construction
	Manufacturing
	Student Contracting
	Developmental Research

In addition to the four fields outlined, the junior high school industrial education program includes a testing area and an instructional materials center. The testing area utilizes the materials and some of the products made in the other areas. The instructional materials center is used as a students' resource room, conference room and research area. *The Developmental Research Unit* is to be used for teacher research into *new* content only. The teacher must define the content of this unit and obtain the approval of the Provincial Consultant of Industrial Education and his principal before introducing it to the students.

C. Length of Program

The recommended time is from 4800 - 7000 minutes per year or 120-175 minutes per week in two blocks of time.

D. Scope of Program

The scope of the industrial education program includes the major technologies and all students, both boys and girls, should have the opportunity to explore the fields.

E. Safety

Each industrial education laboratory must have an effective safety program. This does not mean that the promulgation of a set of rules and regulations will satisfy this end. Students must be taught in each and every subject studied within the industrial education framework, the "hows and whys" inherent in the safety program. It is the responsibility of the teacher to supply continuous and vigilant supervision and to ensure that all students engage in only safe laboratory practices.

REFERENCES

No single textbook is prescribed. References for each module are listed in the course Guide.

CONTENT

Power Technology

    Module 1. Electricity
        — sources, circuitry, control, magnetism, utilization, appliance maintenance, guidance.

    Module 2. Electronics Computer
        — component functions, electronic sound generation, wireless transmission, computer, radio, phonograph/public address system, guidance.

    Module 3. Power Mechanics
        — small gas engines, small gas engine tune-up, CO_2 powered car, model rocketry, fluid power, mechanical power, guidance.

Materials Technology

    Module 1. Earths Technology
        — sources of ceramic and concrete materials, processes, societal implications, guidance.

    Module 2. Lapidary and Art Metals Technology
        — sources of material, processes, societal implications, guidance.

    Module 3. Leather and Textiles Technology
        — sources of materials, processes, societal implications, product planning, guidance.

    Module 4. Metals Technology
        — sources of materials, processes, societal implications, properties, product planning, guidance.

    Module 5. Plastics Technology
        — sources of materials, processes, societal implications, properties, product planning, guidance.

    Module 6. Woods Technology
        — sources of materials, processes, properties, societal implications, product planning, guidance.

Visual Communications

    Module 1. Graphics
        — offset, photo-offset, platen press, rubber stamp (optional), sign press, silk screen, photo silk screen.

    Module 2. Photography/Drafting
        — audio-visual production, camera, darkroom, advanced darkroom, freehand sketchings, instrument drawing.

Synthesizing Modules

Module 1. Construction
— pre-construction planning, preparation for construction, framing, utilities installation, finishing, transferring ownership, occupational information.

Module 2. Industrial Simulation
— history, production systems, systems of ownership, department organization, occupational information.

Module 3. Consumerism Module
— packaging, advertising, marketing, accounting, personnel training, occupational information.

Module 4. Student Contracting

Module 5. Developmental Research

TYPEWRITING

One year of instruction should be sufficient to develop the objectives of junior high school typewriting. It is strongly recommended that the course be offered at the Grade IX level.

Specific Objectives
1. To acquire the proper techniques of typewriting and to become familiar with basic machine operations.
2. To become familiar with common typewriting procedures.
3. To apply typewriting skill in the production of jobs for school and personal use.
4. To develop good work habits.
5. To produce typescript with acceptable standards of accuracy.

Recommended Texts

McConnell & Darnell. *BUILDING TYPING SKILLS*. Second Edition. McGraw-Hill Ryerson, 1973.

Wanous et al. *PERSONAL TYPEWRITING*. Canadian Edition. Gage Educational Publishing, 1973.

Course Content
1. Development of typewriting techniques
2. Familiarity with basic machine operations
3. Common typewriting procedures
4. Personal-use applications
5. Composition at the typewriter
6. Development of good work habits
7. Production of typescript with reasonable speed and accuracy.

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